Appendix V

Waste Classification Profiles and Approvals

2540-PM-BWM0395 Rev. 8/2008
Form

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM U
REQUEST TO PROCESS OR DISPOSE OF RESIDUAL WASTE

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form U, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

DEP USE ONLY
Date Received & General Notes

Date Prepared/Revised 4/5/2019

SECTION A. LANDFILL CLIENT (LANDFILL OR PROCESSING FACILITY OWNER) INFORMATION

DEP Client ID#	DEP Client Type / Code
269759	Limited Liability Company

Organization Name or Registered Fictitious Name
Waste Management of Fairless, LLC

SECTION B. LANDFILL SITE (LANDFILL OR PROCESSING FACILITY) INFORMATION

DEP Site ID#	Site Name	Landfill Permit ID#
716489	Fairless Landfill	101699

Site Contact Last Name	First Name	MI	Suffix
LaCoe	Michael	J.	

Site Contact Title	Site Contact Email Address
Senior Manager, Waste Approvals	mlacoe@wm.com

SECTION C. GENERATOR CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name Weston Solutions, Inc. **DEP Generator ID#**

Company Contact Last Name	First Name	MI	Suffix
Schindler	Jason		

Company Mailing Address Line 1	Company Mailing Address Line 2
205 Campus Drive	

Company Address Last Line – City	State	Zip+4	Country
Edison	NJ	08837	USA

Company Phone	Ext	Company Email Address
732-417-5804		Jason.Schindler@westonsolutions.com

Company Contact Last Name	First Name	MI	Suffix

Contact Phone	Ext	Contact Email Address

If a Subsidiary, Name of Parent Company

Is the waste generated at the Company Mailing Address (noted above)? ☐ Yes ☒ No
If 'No', describe location of waste generation and storage.
PCB-contaminated sediments mechanically dredged and stabilized with Portland cement

Township Woodbridge **County** Middlesex **State** NJ

SECTION D. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure	Time Frame
502	PCB Containing Waste	5000	☐ cu yd ☐ gal ☐ lb ☒ ton	☒ One Time

1. GENERAL PROPERTIES

a. **pH Range** 5.3 to 6.45 (based on analyses or knowledge)

b. **Physical State**
☐ Liquid Waste (EPA Method 9095)
☒ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. **Physical Appearance** **Color** Brown **Odor** None
Number of Solid or Liquid Phases of Separation 1
Describe each phase of separation.
Solid

d.	Attached is information from the generator certifying that a hazardous waste determination has been done and that the waste is not hazardous waste as defined in 40 CFR 261, as incorporated by reference at 25 Pa. Code 261a.1. Caution: If 'No', the application form is incomplete.	☒ Yes	☐ No	
e.	Is the waste treated hazardous waste? If 'Yes', list the hazardous waste code(s) that apply to the hazardous waste before treatment. If 'Yes', what treatment option was selected? What limit was required to be met by the treatment option?	☐ Yes	☒ No	
	Provided a copy of the certification required under 40 CFR 268.7(a), as incorporated by reference at 25 Pa. Code 268a.1, that the waste meets all the land disposal restriction requirements, as specified in 40 CFR Part 268, Subpart D (Land Disposal Restrictions-Treatment Standards).	☐ Yes	☐ No	
f.	Has the waste been delisted as a hazardous waste by DEP or US EPA?	☐ Yes	☒ No	☐ N/A
g.	Has the waste been accepted for disposal/processing at another Pennsylvania facility? If 'Yes', list the facility permit ID number(s).	☐ Yes	☒ No	
h.	Has an application for disposal/processing of the waste at another Pennsylvania facility been submitted? If 'Yes', list the facility permit ID number(s).	☐ Yes	☒ No	

2. Analysis Attachments

a.	Has a detailed physical, chemical and radiological characterization of the waste and its leachate been conducted? If 'No', provide detailed explanation supporting use of generator knowledge in lieu of actual analysis.	☒ Yes	☐ No	
	If 'Yes', attached is a description of the waste sampling methods in accordance with the waste sampling plan as required in §271.611(a)(3) or §287.132(a)(3) and the *Final Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities* (Document Number 250-3100-001).	☒ Yes	☐ No	
b.	Laboratory Accreditation Number			

3. Process Description & Schematic Attachments

a.	Attached is a detailed description of the manufacturing and/or pollution control processes producing the waste. If 'No', provide explanation. Pond sediments contaminated by PCBs from historical facility discharges	☐ Yes	☒ No	
b.	Attached is a schematic of the manufacturing and/or pollution control processes producing the waste. If 'No', provide explanation. PCB-containing liquids discharged from adjacent chemical plant in 1960s.	☐ Yes	☒ No	
c.	Attached is the substantiation for a confidentiality claim (if portions of the information submitted are confidential).	☐ Yes	☒ No	☐ N/A

4. Chemical Analysis Waiver

Categories of residual wastes that qualify for the waiving of chemical analysis by the Department are listed below. Check the appropriate box(es) that match the waste proposed to be accepted for disposal.

- ☐ burnt demolition debris
- ☐ cured rubber scrap
- ☐ fabric/cloth/textile/leather wastes (excluding treatment sludges)
- ☐ food wastes (excluding treatment sludges)
- ☐ metal scrap (excluding powdered grindings or if contaminated with fluids or oils)
- ☐ shingle scrap
- ☐ waste plastic (excluding extrusion manufacturing & uncured resins)
- ☐ Other (explain)
- ☐ carpet scraps
- ☐ empty containers (uncontaminated)
- ☐ fiberglass insulation scrap
- ☐ hot drained used oil filters (non-terne plated)
- ☐ sawdust (excluding treated wood)
- ☐ waste paper
- ☐ wood wastes (excluding treated wood)

All waste types not listed above must be approved in writing in the permit by the Department prior to processing or disposal facility acceptance.

SECTION E. PROPOSED PROCESSING, STORAGE AND/OR DISPOSAL METHOD

Will any special handling procedures (besides direct disposal) described in the waste acceptance plan, be used when managing the waste? ☐ Yes ☒ No

If 'Yes', describe.

Is this material re-used for construction or operation of the facility? ☐ Yes ☒ No

If Yes', describe.

SECTION F. SOURCE REDUCTION STRATEGY

Form 25R must be completed by the generator and attached to this application unless waived in the instructions to that form.

Form 25R attached. ☐ Yes ☒ No ☐ Waived

SECTION G. CERTIFICATION OF PROCESSING OR DISPOSAL FACILITY

I hereby certify that the statements of fact contained therein are true and correct to the best of my knowledge, information and belief. This statement and verification is made subject to the penalties of 18 Pa. C.S.A. Section 4904, relating to un-sworn falsification to authorities.

Name of Responsible Official	**Title**
Jason Schindler	Principal Project Manager
Signature	**Date** 4/5/2019

Certificate of Non-hazardous Waste

I, the undersigned, being duly authorized by my company certify that the wastestream(s) we are disposing at the GROWS North Landfill, Tullytown Resource Recovery Facility, Mountain View Reclamation Landfill, Alliance Sanitary Landfill, Grand Central Sanitary Landfill, Fairless Landfill and/or the Phoenix Resources Landfill is/are not a characteristic hazardous waste as defined in 40 CFR, Sections 261.20 to 261.24, and/or is not a listed hazardous waste as defined in 40 CFR, Sections 261.30 to 261.34. Furthermore, based on generator's knowledge of the company's process, TCLP and Total Characteristics not tested for are known not to be present in the concentrations equal to or greater than the value specified in the TC Rule 40 CFR Part 261.24.

Signature: _____ Date: 4/5/2019

Printed Name: Jason Schindler

PCB CERTIFICATION FOR SUBTITLE D FACILITIES AND SUBTITLE C NON-TSCA FACILITIES

(NOTE: Portions of associated TSCA regulations and EPA guidance are included on Page 2 of this certification form)

Profile Number: _____

I certify to Waste Management that within my company I have knowledge concerning the accuracy of the following representations and that the following representations are correct to the best of my knowledge.

SIGNATURE OF GENERATOR	Jason Schindler PRINT NAME
Principal Project Manager TITLE	Weston Solutions, Inc. COMPANY NAME
WM RECEIVING FACILITY	4/5/2019 DATE

NOTE: *Generators are required to make a good faith effort to comply with all applicable regulations and may be subject to enforcement action if their determination is incorrect. EPA's PCB Penalty Policy states: "The lack of knowledge of a particular requirement does not necessarily reduce culpability, since the Agency has no intention of encouraging ignorance of the PCB rules. The test will be whether the violator knew or should have known of the relevant requirement or the possible dangers of his actions. As a general matter, any electric utility, and any company with PCBs, is deemed to have knowledge of all aspects of TSCA and the PCB regulation. TSCA is a strict liability statute, and there is no requirement that a violator's conduct be willful or knowing for it to be found in violation of TSCA or its implementing regulations."*

1. **Are the PCBs detected in the waste the result of a spill of PCBs that occurred prior to April 18, 1978 and the actual PCB concentration of the waste is less than 50 PPM?**
   - ☐ Yes (Please provide supporting documentation.* No further questions.)
   - ☒ No (Please proceed to Question 2)
   - ☐ Following a diligent investigation of available information, I am unable to locate any information which indicates that a spill of PCBs occurred subsequent to April 18, 1978 or that the original source was ≥50 ppm.

2. **Did the spill of PCB material in the waste occur on or after April 18, 1978 and the source was an authorized source with PCBs less than 50 PPM?**
   - ☐ Yes (Please provide supporting documentation.* No further questions.)
   - ☒ No (Please proceed to Question 3)
   - ☐ Following a diligent investigation of available information, I am unable to locate any information which indicates that the original source was unauthorized or ≥50 ppm PCBs and the actual PCB concentration of the waste is < 50 ppm PCBs.

3. **Does the material as generated meet the definition of a PCB Remediation Waste as defined in 40 CFR 761.3?** ***Note: 40 CFR 761.50(b)(3)(iii) The owner or operator of a site containing PCB remediation waste has the burden of proving the date that the waste was placed in a land disposal facility, spilled, or otherwise released into the environment, and the concentration of the original spill.***
   - ☒ Yes (**If yes, disposal must be in accordance with 40 CFR 761.61. Please select applicable disposal option below.)****
   - ☐ No (Please proceed to Question 4)

   PCB REMEDIATION WASTE APPLICABLE DISPOSAL OPTION:
   - ☐ Managed under 40 CFR 761.61(a) Self-Implementing Plan (Please provide SIP and EPA approval if received***)
   - ☐ Managed under 40 CFR 761.61(b) Performance-Based Option (Subtitle C with TSCA Authorization disposal only)
   - ☒ Managed under 40 CFR 761.61(c) Risk-Based Plan (Please provide Plan and EPA approval)

4. **Does the material as generated meet the definition of PCB Bulk Product Waste as defined in 40 CFR 761.3**?**
   - ☐ Yes (Please specify applicable clean-up option below)
   - ☒ No (Please provide WM with detailed description regarding the waste and the process generating it. Describe what the source of PCBs is and how the PCBs came to be in the waste. Examples: Excluded PCB Products, PCB Liquids, PCB Items, PCB Household Waste, Natural Gas Pipeline Wastes, PCB R&D Waste, PCB/Radioactive Waste, Porous Surfaces).

   PCB BULK PRODUCT WASTE APPLICABLE CLEAN-UP OPTION:
   - ☐ The waste covered by this certification is PCB bulk product waste regulated under 761.62(b)(1)(i) such as plastics; preformed or molded rubber parts or components; applied dried paints, varnishes, waxes, or other similar coatings or sealants; caulking; Galbestos; non-liquid building demolition debris; non-liquid PCB bulk product waste from the shredding of automobile or household appliances from which PCB small capacitors have been removed prior to shredding, or intact non-leaking fluorescent light ballasts. Based on analysis of the waste in the shipment or general knowledge of the waste stream (or similar material), this waste may include components containing PCBs at greater than or equal to 50 ppm. (Attach supporting documentation.*)
   - ☐ The waste covered by this certification is other PCB bulk product waste as regulated under 761.62(b)(1)(ii) and, based on sampling conducted in accordance with the protocols set out in Subpart R of Part 761, leaches at less than 10 micrograms per liter (ug/L) of water measured using a procedure used to simulate leachate generation. This waste, based on analysis of the waste in the shipment or general knowledge of the waste stream (or similar material), may include components containing PCBs at greater than or equal to 50 ppm. (Attach supporting documentation.*)
   - ☐ The waste covered by this certification is PCB bulk product waste OTHER THAN that described in either category above (e.g. paper or felt gaskets contaminated by liquid PCBs) and is regulated under 761.62(b)(2). Based on analysis of the waste in the shipment or general knowledge of the waste stream (or similar material), this waste may include components containing PCBs at greater than or equal to 50 ppm. (Attach supporting documentation.*)

** Sampling and reporting PCB concentrations in samples must be done in accordance with 40 CFR 761 Subpart R.*

*** Generator must provide written notice to disposal facility at least 15 days prior to first shipment for either PCB Remediation Wastes managed under a SIP or PCB Bulk Product Wastes. Completing the applicable sections above and signing this form in conjunction with completed WM EZ Profile may serve as your 15-day notification. Total quantity to be shipped and highest PCB concentration must be provided.*

****By signing this form, the generator confirms that the attached self-implementing notification was submitted to the applicable regulatory authority for approval 30 days prior to the commencement of cleanup activity. The regulatory authority either approved or did not respond within 30 days of receiving the notification; therefore, it is assumed that the notification is approved.*

PCB CERTIFICATION FOR SUBTITLE D FACILITIES AND SUBTITLE C NON-TSCA FACILITIES

This form is intended to support waste characterization into a Subtitle D or a Non-Toxic Substances and Control Act (TSCA) Approved Subtitle C facility for non-PCB wastes (e.g. non-TSCA wastes), certain TSCA-Regulated PCB Remediation Wastes, or certain TSCA-Regulated PCB Bulk Product Wastes.

Non-TSCA Wastes: PCB-contaminated wastes for which the source PCB concentration was less than 50 ppm are not regulated under TSCA. This includes certain PCB manufacturing processes and products which appear at concentrations less than 50 ppm. See 40 CFR 761.3, 'Excluded Manufacturing Process' and 'Excluded PCB products'. See also EPA's June 2014 PCB Q & A document, 761.61 'As Found Concentration'.

PCB Remediation Waste is defined in 40 CFR 761.3 with specific disposal options identified in 40 CFR 761.61. In general, PCB Remediation Waste means waste containing PCBs as a result of a spill, release, or other unauthorized disposal at the following concentrations:

- Materials disposed of prior to April 18, 1978, that are currently at concentrations ≥50 ppm PCBs, regardless of the concentration of the original spill;
- materials which are currently at any volume or concentration where the original source was ≥500 ppm PCBs beginning on April 18, 1978, or ≥50 ppm PCBs beginning on July 2, 1979; and
- materials which are currently at any concentration if the PCBs are spilled or released from a source not authorized for use under this part.

PCB Remediation Waste means soil, rags, and other debris generated as a result of any PCB spill cleanup, including, but not limited to:

- Environmental media containing PCBs, such as soil and gravel;
- Dredged materials, such as sediments, settled sediment fines, and aqueous decantate from sediment;
- Sewage sludge containing <50 PPM PCBs and not in use according to 40 CFR 761.20(a)(4);
- PCB sewage sludge;
- Commercial or industrial sludge contaminated as the result of a spill of PCBs including sludges located in or removed from any pollution control device;
- Aqueous decantate from an industrial sludge.
- Buildings and other man-made structures (such as concrete floors, wood floors, or walls contaminated from a leaking PCB or PCB-Contaminated Transformer), porous surfaces, and non-porous surfaces.
- Personal Protective Equipment (PPE) or other solid cleaning material with any concentration of PCBs generated as a result of any PCB remediation waste spill cleanup.

The PCB regulations for disposal of PCB Remediation Waste allow generators to manage the waste under three specific scenarios: 1) Self-implementing on-site cleanup and disposal; 2) Performance-based disposal, or 3) Risk-based disposal.

PCB Bulk Product Waste is defined in 40 CFR 761.3 with specific disposal options identified in 40 CFR 761.62. PCB Bulk Product Waste means waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was ≥50 ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under §761.60(a) through (c), §761.61, §761.63, or §761.64. PCB bulk product waste includes, but is not limited to:

- Non-liquid bulk wastes or debris from the demolition of buildings and other man-made structures manufactured, coated, or serviced with PCBs. PCB bulk product waste does not include debris from the demolition of buildings or other man-made structures that is contaminated by spills from regulated PCBs which have not been disposed of, decontaminated, or otherwise cleaned up in accordance with subpart D of this part.
- PCB-containing wastes from the shredding of automobiles, household appliances, or industrial appliances.
- Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; adhesives; paper; Galbestos; sound deadening or other types of insulation; and felt or fabric products such as gaskets.
- Fluorescent light ballasts containing PCBs in the potting material.

On October 24, 2012, the USEPA issued a memorandum titled 'PCB Bulk Product Waste Reinterpretation'". The reinterpretation provides the ability to dispose of any building material, contaminated by adjacent PCB bulk product waste (e.g., caulk, paint, mastics, and sealants), in accordance with the PCB bulk product waste regulations.

- The migration of PCBs from PCB bulk product waste, such as caulk or paint, can occur to the surrounding building materials. This reinterpretation allows building material "coated or serviced" with PCB bulk product waste (e.g., caulk, paint, mastics, sealants) at the time of designation for disposal to be managed as a PCB bulk product waste, even if the PCBs have migrated from the overlying bulk product waste to the substrate (i.e., building materials), provided there is no other source of PCB contamination on or in the substrate (i.e., building materials). The PCB contamination can only be from the PCB bulk product waste and not from another source (e.g., PCB transformer).
- Conversely, PCB-contaminated building material (i.e., substrate) from which a PCB bulk product waste has been removed (i.e., no longer attached to the building materials) would be considered a PCB remediation waste. Contaminated building materials that remain in place, after the PCB bulk product waste (e.g., caulk, paint, mastics, and sealants) has been removed, continue to be considered and managed as PCB remediation waste. For example, if the PCB material has already been removed or flaked off at the time of designation for disposal, the building material would be deemed a PCB remediation waste.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08837

DEC 2 0 2017

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Article Number: 7017 0660 0000 9509 3685

Mr. Jason Schindler
Principal Project Manager
Weston Solutions, Inc.
205 Campus Drive
Edison, New Jersey 08837

Re: Hatco Site, Fords, New Jersey
Remediation Plan for Woodbridge Pond

Dear Mr. Schindler:

This is in response to the August 29, 2017 document entitled "Remedial Action Work Plan Addendum 4 for AOC-24: Woodbridge Pond" (Addendum 4), prepared by Weston Solutions, Inc. (Weston) for the Hatco Site. Addendum 4 was modified through submittal of additional information in your electronic correspondence dated December 5, 2017 and December 12, 2017. These three documents will collectively be referred to as "Revised Addendum 4".

Please be advised that upon review the United States Environmental Protection Agency hereby approves Revised Addendum 4. Weston may proceed with the remediation of Woodbridge Pond in accordance with Revised Addendum 4 as well as the March 30, 2005 risk-based PCB disposal approval.

Should you have any questions concerning this matter, please contact James S. Haklar at (212) 637-3037 or at haklar.james@epa.gov.

Sincerely,

John Gorman, Chief
Pesticides and Toxic Substances Branch

Schindler, Jason

From: Schindler, Jason
Sent: Tuesday, December 5, 2017 4:44 PM
To: 'Haklar, James'; Devorak, Coleen
Subject: RE: Hatco - Minor change in plans today.
Attachments: 2017-12-05 Weston RTC EPA Comments on RAWPA4.docx

Hi Jim,
Based on today's discussion we prepared the attached responses to each of your comments. I hope these clarifications cover any remaining concerns. Please let me know if we missed the point on anything.
Thanks,
Jason

From: Haklar, James [mailto:Haklar.James@epa.gov]
Sent: Tuesday, December 5, 2017 12:32 PM
To: Schindler, Jason <Jason.Schindler@WestonSolutions.com>; Devorak, Coleen <Coleen.Devorak@WestonSolutions.com>
Subject: Hatco - Minor change in plans today.

Jason/Coleen:

I have to stay in the office this afternoon on another issue, but we can still talk at 2:00 (please call me at 732-906-6817 when you are ready). Attached are the comments; I'm optimistic we can resolve them this afternoon.

Thanks.

Jim

Comments Regarding the Remedial Action Work Plan Addendum 4 for
AOC 24: Woodbridge Pond
Hatco Site

Section 4.0 (Extent of the Remediation Area): Please confirm that PCBs < 50 ppm will be disposed in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(**ii**), while PCBs ≥ 50 ppm will be disposed in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(**iii**) (please note the differences).

Response: Confirmed.

Section 5.4.2 (Woodbridge Pond Property Site Preparations): Please confirm that the fill material for staging and access (sand) will not contain PCBs in excess of 1 ppm. While we recognize that the intent is not to have contaminated material/equipment come into direct contact with the fill, we nevertheless recommend that a plan be developed for its sampling prior to use as backfill in other locations.

Response: Weston and our construction contractors will take appropriate precautions to prevent contamination of the clean fill material used to construct the staging and access area. The planned staging and access area is expected to cover 7,000 to 10,000 square feet and will require an estimated 800 to 1,500 cubic yards of clean fill to create a 3- to 4-foot high working platform. These dimensions will be finalized as part of the final permit application. As specified in Section 10.0, the clean fill material will meet the definition under N.J.A.C. 7:26E-1.8.

Prior to reuse of this material as backfill within the pond, Weston will resample the surface to ensure that the clean fill was not contaminated during the remediation activities. Weston will collect one sample per 1,000 square feet of surface area for analysis of PCBs and BEHP. Should the clean fill material exhibit evidence of contamination the affected material will not be reused in the pond and will be disposed offsite if not suitable for reuse elsewhere onsite.

Section 5.7 (Surface Water Treatment and Discharge): Please confirm that the temporary water treatment system will be designed and monitored to ensure removal of PCBs to at least 0.5 parts per billion (i.e., the unrestricted use level of 40 CFR 761.79).

Response: Based on discussions with NJDEP, the dewatering system will not require a discharge permit. Weston proposes to collect samples of the water drained from the sediments after solids removal. During the first month of dewatering, one sample will be collected each week for the first four weeks. After that, samples will be collected on a monthly basis. The samples will be analyzed for total suspended solids and for PCBs for verification purposes.

Section 5.8 (Waste Classification and Handling):

- Please confirm that waste will be stored for disposal in accordance with 40 CFR 761.65.

- The text on Page 5-5 states that dewatered sediments will be characterized for disposal. However, please be aware that the type of disposal facility selected (i.e., TSCA-permitted or RCRA Subtitle D) must be made based on the in situ (pre-excavation) concentrations.

Response: Confirmed. Excavated material will be segregated based on PCB concentrations determined in-situ.

Section 6.0 (Remediation Standards): The Alternate Remediation Standards (ARSs) for Woodbridge Pond sediment are stated as 1 mg/kg (dry weight) PCBs and 22 mg/kg (dry weight). Please confirm that the PCB ARS is based on total Aroclor PCBs and that the method of compliance will be point-by-point. Furthermore, since Section 1.1 states that the future use of this Woodbridge Township-owned property is "unrestricted access and public recreational use for boating and fishing," please explain how these ARSs are protective for recreational exposure scenarios.

Response: The PCB ARS is based on total Aroclor PCBs and that the method of compliance will be point-by-point. The planned use of the pond has not changed since the inception of the project. The ARS of 1 mg/kg PCBs is based on the criterion previously established for the offsite sediments and described in the risk-based PCB disposal approval letter from USEPA dated March 30, 2005. The ARS of 22 mg/kg BEHP was suggested by NJDEP and accepted by Weston during the Technical Consultation meeting on May 7, 2015.

Section 7.1.2 (Pre-Excavation Verification Samples): This section explains that certain samples that were previously collected and analyzed during the remedial investigation (RI) will serve as pre-excavation verification samples, and that this was previously agreed upon in discussions with the EPA. While it is recognized that turbidity curtains will be used to minimize contamination transport within the pond, the possibility still exists that contamination could be transported, by the act of dredging, to places where post-excavation sampling will not be collected. With the exception of the two sample locations identified below, the use of certain delineation samples in lieu of post-dredging samples will be acceptable, provided that sediment suspended through dredging is effectively contained through the use of turbidity curtains.

Based on a review of Figure 7-1, there are two RI samples that appear to be relatively distant from their respective grid nodes; these are CP-45 and CP-54. We therefore recommend that post-excavation samples be collected at the nodes.

Response: The proposed remediation approach assumes that the technologies employed will function as intended. If there is a failure that results in cross-contamination of a portion of the pond, then appropriate measures will be taken to correct the problem including removal of affected sediments and collection of additional post-dredging samples as appropriate. The extent of any such corrective measure would be discussed with the regulators when and if such and occurrence were to take place. Weston agrees to collect post-excavation samples at the two grid nodes indicated above.

Section 7.1.5 (Sediment Sample Processing): In the first bullet on Page 7-4, if small holes are to be drilled through the liner to allow excess water to drain, please verify that the drill bit will be decontaminated between liners.

Response: Drill bits will be decontaminated prior to each use consistent with any other reusable sampling equipment as described in Section 7.3.

Section 7.3 (Equipment Decontamination): Wipe samples should be collected of the heavy equipment even if the equipment contacted sediments with < 50 mg/kg PCBs.

Response: Equipment that comes into contact with PCB-contaminated waste (i.e., PCB-concentration greater than 1 mg/kg) will be decontaminated. Wipe samples will be collected to verify adequate decontamination before the associated equipment will be removed from the site.

Section 11.5 (Wetland Monitoring Activities): This section states "wetland plantings will be monitored," yet the two prior sections specifically state that that plantings will not be used for the pond or wetland restorations (i.e., natural revegetation/seed bank will be relied upon). Please note that wetland restoration, mitigation, and monitoring plans must be in accordance with NJDEP Land Use Regulation Program permit requirements.

Response: Wetland restoration and monitoring will be performed in accordance with the permit requirements.

Appendix F, Table 3-1: Method SW-846 3510C is a liquid/liquid extraction method and should only be used where there is little to no sediment.

Response: The incorrect extraction method was cited in the table. Weston will use either Method 3500B/3540C or Method 3500B/3550B for extraction and analysis.

Figure 2-3: In this figure, a number of highly contaminated samples are located outside of the dark blue line which indicates the "Current Woodbridge Pond Extent (2015)." Examples of the locations are CP-12, CP-16, CP- 25, CP- 26. Please verify that these locations are included for excavation and post-excavation sampling.

Response: The samples indicated above fall within the limits of the proposed excavation and post-excavation sampling.

Schindler, Jason

From: Schindler, Jason
Sent: Tuesday, December 12, 2017 11:21 AM
To: 'Haklar, James'; Devorak, Coleen
Subject: RE: Hatco - Minor change in plans today.

Jim,
As a follow up to our discussion today, this message is intended to clarify two of the responses from December 5.

1. Section 5.7, in addition to TSS and PCBs, the treated water samples will also be analyzed for BEHP following the methodology identified on Table 3-1 in Appendix F. Table 3-2, identifies method 3550C for extraction for the solid sample analyses, including sediment. Weston understands that method 3550C should be acceptable in lieu of 3550B. If this is incorrect, please advise.
2. With regard to the extraction method cited, Method 3510C is correctly identified on Table 3-1 in Appendix F for liquid/liquid extraction to be applied to field blank samples, treated water and the liquid associated with TCLP samples for waste classification purposes. The sediment samples will be extracted using either Method 3500B/3540C or Method 3500B/3550B or (3550C as noted above) for extraction and analysis.

Let me know if you have any further questions.
Thanks,
Jason

From: Schindler, Jason
Sent: Tuesday, December 5, 2017 4:44 PM
To: 'Haklar, James' <Haklar.James@epa.gov>; Devorak, Coleen <Coleen.Devorak@WestonSolutions.com>
Subject: RE: Hatco - Minor change in plans today.

Hi Jim,
Based on today's discussion we prepared the attached responses to each of your comments. I hope these clarifications cover any remaining concerns. Please let me know if we missed the point on anything.
Thanks,
Jason

From: Haklar, James [mailto:Haklar.James@epa.gov]
Sent: Tuesday, December 5, 2017 12:32 PM
To: Schindler, Jason <Jason.Schindler@WestonSolutions.com>; Devorak, Coleen <Coleen.Devorak@WestonSolutions.com>
Subject: Hatco - Minor change in plans today.

Jason/Coleen:

I have to stay in the office this afternoon on another issue, but we can still talk at 2:00 (please call me at 732-906-6817 when you are ready). Attached are the comments; I'm optimistic we can resolve them this afternoon.

Thanks.

Jim

WESTON SOLUTIONS, INC.
205 CAMPUS DRIVE
EDISON, NEW JERSEY 08837
732-417-5800 • FAX: 732-417-5801

The Trusted Integrator for Sustainable Solutions

August 29, 2017

Susan Schulz, Toxics Section Chief
U.S. EPA Region II
Pesticides & Toxic Substances Branch
2890 Woodbridge Avenue
Bldg. 10 (MS-105)
Edison, NJ 08837-3679

Matthew Turner, Supervisor
New Jersey Department of Environmental Protection
Bureau of Inspection and Review
Mail Code 401-05P
401 East State Street
Trenton, NJ 08625-0420

Re: Remedial Action Work Plan Addendum No. 4
Hatco Corporation Site
1020 King Georges Post Road
Fords, New Jersey
Program Interest Number G000003943

Dear Ms. Schulz and Mr. Turner:

Enclosed for your review please find Remedial Action Work Plan Addendum No. 4 for the Hatco Corporation remediation project. This document is provided for your review in accordance with the Risk-Based Polychlorinated Biphenyl (PCB) Disposal approval letter dated March 30, 2005 with additional copies as discussed during the Technical Consultation meeting at NJDEP on February 21, 2017.

If you have any questions, please do not hesitate to contact me at (732) 417-5804.

Very truly yours,
WESTON SOLUTIONS, INC.

Jason Schindler
Principal Project Manager

Attachment:
Remedial Action Work Plan Addendum No. 4

cc: James Haklar – USEPA .....hard copy
Kevin Schick – NJDEP .....hard copy
Nancy Hamill – NJDEP .....hard copy
Bureau of Case Assignment & Initial Notice .....electronic submittal
Mark Fisher, LSRP – ELM .....electronic copy
Caroline Ehrlich – Woodbridge Township .....electronic copy
Robert Landolfi – Woodbridge Township .....electronic copy
Law Department – Woodbridge Township.....hard copy
Eric Lange – James P. Nolan & Associates .....electronic copy
Matthew Mauro – Excel Environmental.....electronic copy
Ramin Ansari – Lanxess .....electronic copy
Ana Martin – Lanxess.....electronic copy
Lisa Daniel – Lanxess.....electronic copy
Venkat Puranapanda – Chubb.....electronic copy
Ajay Kathuria – LBG.....electronic copy
Sally Jones – Weston Solutions .....electronic copy

Kevin Schick, Bureau Chief
New Jersey Department of Environmental Protection
Bureau of Environmental Evaluation and Risk Assessment
Mail Code 401-05W
401 East State Street
Trenton, NJ 08625-0420

Nancy E. Hamill
Research Scientist
Bureau of Environmental Evaluation and Risk Assessment
Mailcode: 401-04M
P.O. Box 420
Trenton, NJ 08625-0420

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

REMEDIAL ACTION WORK PLAN ADDENDUM 4
for
AOC-24: WOODBRIDGE POND

HATCO CORPORATION SITE
FORDS, NEW JERSEY

August 29, 2017

Prepared for:

New Jersey Department of Environmental Protection
Site Remediation Program
Via http://www.nj.gov/dep/online/

United States Environmental Protection Agency, Region 2
2890 Woodbridge Avenue (MS-105)
Edison, NJ 08837-3679

Prepared by:

WESTON SOLUTIONS, INC.
205 Campus Drive
Edison, NJ 08837

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

NJDEP FORMS ACCOMPANYING THIS SUBMITTAL

- **Authorization to Submit a Remedial Investigation Report, Remedial Action Work Plan or Remedial Action report through NJDEP Online**
- **Cover Certification Form**
- **Case Inventory Document**
- **Remedial Action Work Plan Form**
- **Alternative or New Remediation Standard and/or Screening Level Application Form**

ACRONYMS AND ABBREVIATIONS

ACE	ACE American Insurance Company
ACO	Administrative Consent Order
AOC	Areas of Concern
ARRCS	Administrative Requirements for the Remediation of Contaminated Sites
ASTM	American Society for Testing and Materials
BEHP	bis(2-ethylhexyl)phthalate
CY	cubic yard
DSW	Discharge to Surface Water
DUA	Data Usability Assessment
FHA	Flood Hazard Area
FSCD	Freehold Soil Conservation District
GIS	Geographic Information System
GPS	Global Positioning System
Hatco	Hatco Corporation
HDPE	high-density polyethylene
ID	Identification
IRM	Interim Remedial Measures
LSRP	Licensed Site Remediation Professional
mg/kg	milligram per kilogram
NAVD88	North American Vertical Datum of 1988
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJPDES	New Jersey Pollution Discharge Elimination System
PCB	polychlorinated biphenyls
PPE	Personal Protective Equipment
QAPP	Quality Assurance Project Plan
QA	Quality Assurance
RAR	Remedial Action Report
RAPR	Remedial Action Progress Report
RAWP	Remedial Action Work Plan
RAWPA	Remedial Action Work Plan Addendum
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RIR	Remedial Investigation Report
SRRA	Site Remediation Reform Act
SESCP	Soil Erosion and Sediment Control Plan
TSCA	Toxic Substance Control Act
URS	URS Corporation
USEPA	United States Environmental Protection Agency
WCC	Woodward Clyde Consulting
Weston	Weston Solutions, Inc.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE

Weston Solutions, Inc. (Weston) has prepared this Remedial Action Work Plan (RAWP) Addendum No. 4 for remediation of Hatco Area of Concern (AOC) 24: Woodbridge Pond. The goal of the remedial action is to remove polychlorinated biphenyls (PCBs) and bis(2-ethylhexyl) phthalate (BEHP) to applicable remediation criteria at AOC-24. The RAWP is designed to comply with the requirements of the Toxic Substance Control Act (TSCA) governing PCB remediation and the New Jersey Site Remediation Reform Act (SRRA).

The Hatco site is identified as:
Hatco Corporation
1020 King Georges Post Road
Fords, New Jersey
Preferred ID Number G000003943 (NJDEP, Site Remediation Program)

RAWP Addendum No. 4 builds upon Weston's Consolidated RAWP submitted to the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) on August 18, 2005 for the Hatco Corporation site. This RAWP Addendum No. 4 specifically addresses one Area of Concern (AOC-24) identified as an offsite impact from the Hatco site. AOC-24 consists of a portion of Block 71, Lot 7, which is owned by Woodbridge Township. Figure 1-1 shows relative locations of the Hatco site and Woodbridge Pond. Figure 1-2 illustrates the AOCs identified during Hatco site remediation.

Woodbridge Township plans for future property use include unrestricted access and public recreational use for boating and fishing. The scope of work described in this RAWP Addendum is based on discussions of the remediation approach with Woodbridge Township, USEPA and the Licensed Site Remediation Professionals (LSRP) for the Hatco and Woodbridge Township properties.

The remedial action described in this RAWP Addendum No. 4 involves the physical removal of pond sediments containing BEHP and/or PCB concentrations in excess of the applicable standards (see Section 6.0).

1.2 SITE BACKGROUND

Through an environmental liability transfer Weston assumed responsibility for contamination associated with historical releases at the Hatco site prior to November 4, 2002. Weston's obligations and requirements for the Hatco site are described in the following documents:

- Risk-Based Disposal Approval, Dated March 30, 2005, issued by letter from USEPA to Weston (Appendix A)
- Remediation Agreement, dated April 8, 2005, by and between Hatco, W.R. Grace &Co.-Conn., Remedium Group, Inc., and Weston

- Natural Resource Damages Settlement Agreement dated April 8, 2005, between the NJDEP, Hatco, W.R. Grace, Remedium, and Weston and the associated Natural Resource Damages release executed by NJDEP on May 11 and 12, 2005
- Settlement Agreement between Hatco, Debtors, NJDEP, Weston and ACE American Insurance Company (ACE) entered into on April 8, 2005
- Draft Remedial Action Work Plan (RAWP), dated March 29, 2001 and prepared by URS Corporation (URS) on behalf of Grace and Hatco (URS, 2001)
- Administrative Consent Order (ACO), recorded August 16, 2005, issued by NJDEP to Weston and ACE

The Hatco site is located on property that is currently owned and operated by Lanxess Solutions US, Inc. (Lanxess) as a specialty chemical manufacturing facility. Figure 1-2 shows the facility and Hatco AOCs including Woodbridge Pond. Consistent with the documents identified above, this RAWP Addendum No. 4 addresses remediation of releases that occurred prior to November 4, 2002.

Woodbridge Pond was identified as an offsite receptor during the Remedial Investigation (RI) of the Hatco site. AOC-24 is located on the north side of Riverside Drive (formerly Industrial Highway), immediately east of the intersection with Mac Lane. Previous investigations identified and delineated PCBs and BEHP in sediments at concentrations above applicable screening criteria and concluded that additional remediation was required.

This RAWP Addendum No. 4 proposes activities associated with the removal of sediment containing PCBs and BEHP attributable to historical releases from the Hatco site.

1.3 REPORT ORGANIZATION

This RAWP Addendum No. 4 contains the information required by the Technical Requirements for Site Remediation, New Jersey Administrative Code (TRSR, N.J.A.C.) 7:26E for Remedial Action Work Plans.

As specified at N.J.A.C. 7:26E-5.5(b)1, Section 2 provides the findings and recommendations from the remedial investigation of this AOC including background on the history and environmental setting of Woodbridge Pond as it relates to the proposed remediation project.

As specified at N.J.A.C. 7:26E-5.5(b)2, Section 3 describes the previous Interim Remedial Measure (IRM) that was implemented in this AOC.

As specified at N.J.A.C. 7:26E-5.5(b)3, Section 4 identifies the AOC where the remediation will be implemented, provides the horizontal and vertical extent of the impacted area, and identifies the estimated volumes of the contamination to be treated or removed for each environmental medium.

As specified at N.J.A.C. 7:26E-5.5(b)4, Section 5 presents a detailed description of the planned remedial action. Because no bench scale, pilot test or design studies were completed to develop the remedial design, a discussion of pre-design studies is not included.

As specified at N.J.A.C. 7:26E-5.5(b)5, Section 6 identifies the applicable remediation standards.

As specified at N.J.A.C. 7:26E-5.5(b)6, Section 7 provides the post-excavation sampling plan to evaluate the effectiveness of the remedial action.

As specified at N.J.A.C. 7:26E-5.5(b)7, Section 8 discusses perimeter air monitoring and action plans for this remedial action.

As specified at N.J.A.C. 7:26E-5.5(b)8, Section 9 identifies the required permits for this remedial action.

As specified at N.J.A.C. 7:26E-5.5(b)9, Section 10 presents the fill use plan.

As specified at N.J.A.C. 7:26E-5.5(b)10, Section 11 outlines the restoration process, including permit close out and restoration measures.

As specified at N.J.A.C. 7:26E-5.5(b)11, Section 12 provides a tentative project schedule including the proposed project completion date and the anticipated dates for the initiation and completion of each remedial action task. The schedule will be revised as applicable subject to timeframes for regulatory reviews, permit approvals, weather delays and other conditions beyond the control of Weston.

SECTION 2.0 REMEDIAL INVESTIGATION FINDINGS AND RECOMENDATIONS

2.1 DESCRIPTION

Woodbridge Pond occupies approximately 2 acres of Block 71, Lot 7 in Woodbridge Township, Middlesex County, New Jersey. AOC-24 was previously defined as the pond, the banks around the pond and a channel to the southwest of the pond (Figure 1-2), comprising an estimated three-acre area. A site map for AOC-24 is included as Figure 2-1. Weston and its subcontractor, AquaSurvey, completed a bathymetric survey in March 2014. Results of the bathymetric survey indicated water depth ranging from less than 1 foot in the northern and western portions of the pond to approximately 4.5 feet in the southeastern portion of the pond. The results of the bathymetric survey were converted to elevations shown on Figure 2-1. The pond bottom elevation ranges from approximately 9.5 feet to 14.0 feet North American Vertical Datum of 1988 (NAVD88). Review of historical maps and aerial imagery suggests that the pond is a manmade or partially manmade feature that may have formed by excavation and/or sometime after the construction of a historical railroad embankment along what is now the eastern edge of the pond. The railroad is no longer present in this area.

Surrounding land uses consist of industrial and commercial development (including the active Hatco facility, Crown Pacific (office relocation service), the Competitive Power Ventures (CPV) Woodbridge Energy Center power plant and other warehousing and commercial operations along Mac Lane and south of Riverside Drive), interspersed with undeveloped wetland habitat, much of which is dominated by common reed (*Phragmites australis*), and some remnant forested wetlands.

The pond is bordered to the north and east by woods, shrubs and common reed. Riverside Drive runs along the southern edge of the pond and Mac Lane near the western edge. Embankments separate the roadways from the pond and limit access. Middlesex Water Company's easement runs subparallel to the eastern property line of Lot 7. The water line limits access for heavy equipment because the water line and associated fill material are not designed to support traffic.

2.2 OWNERSHIP AND OPERATIONAL HISTORY

2.2.1 History of Block 71, Lot 7

The current owner of Block 71, Lot 7 is Woodbridge Township. On September 25, 2012 Woodbridge Township obtained the property from Industrial Highway Corporation in a tax sale (Deed filed October 3, 2012 beginning on Deed Book 06396 Page 0759). The Certificate of Tax Sale referenced in the Deed was dated December 16, 1991 (Book M04179 Page 0211). Based on property Deeds (EDR Chain of Title Report dated November 1, 2016 and Weston online County Deed searches), prior owners were:

- Cornelius A. Wall, Middlesex County Sheriff (pre-1948)
- Clara Helbib (1948-1950)
- Fords Clay Company (1950-1952)

- Heyden Chemical Corporation, Heyden Newport Chemical Corporation, HDN Corporation, Tenneco Chemicals and Tenneco Eastern Realty, Inc. (all related corporations/successors from 1952 to 1985)
- Industrial Highway Corporation (1985 to 2012)

Early Woodbridge Township tax maps (dated 1913, 1916, 1918 and 1943) show ownership by S.G. Brinkman with Ostrander's Railroad (formerly Campbell's Clay Railroad) on the eastern portion of the lot. The present lot lines and designations are shown on a Final Plat prepared for Industrial Highway Corporation and approved by Middlesex County Planning Board on June 5, 1986. This Plat shows the Middlesex Water Company easement (reproduced on Figure 2-1 of this RAWPA) as well as the "approximate location of Ostrander's Railroad" indicated as passing along the eastern portion of present-day Woodbridge Pond, just west of the water line.

Woodbridge Pond itself has been known by several former designations, including "Brinkman's Pond" and "Morris Pond."

The earliest available historical aerial photograph shows that Woodbridge Pond existed in 1931. The pond is not shown on topographic maps from 1888 to 1947 and is first depicted on a 1958 map. However, historical aerial photographs demonstrate that it existed by 1931. Based on surrounding topography and historical features, it is likely that this pond was created by excavation below the water table and/or construction of the adjacent former railroad berm.

Block 71, Lot 7 has remained as an undeveloped parcel with the exception of the former railway and the extension of a water line through the lot by Middlesex Water Company. Anthropogenic influence to the pond included the railway, runoff from Riverside Drive and commercial/industrial development beginning with former Norvell/Heyden facilities to the south (whose land holdings included Woodbridge Pond) and Hatco to the east.

2.3 PHYSICAL SETTING

2.3.1 Topography and Drainage

Figure 1-1 is a modern topographic map showing Lot 7's highest elevation at just under 20 feet relative to the National Geodetic Vertical Datum (1929), which is approximately 19 feet NAVD88. The land slopes to the south, towards Woodbridge Pond, which is deepest in the southeastern corner of the pond. Figure 2-1 shows the pond bottom elevations based on bathymetric survey data collected in 2014 (referenced to NAVD88).

Five surface water channels have been identified adjacent to or near Woodbridge Pond. Four of these channels were designated as "Channel A," "Channel B," and "Channel C" (which includes two channels – one entering and one leaving the pond) as part of a hydrologic study by Woodward Clyde Consulting (WCC) in 1998. For purposes of this RAWP, the fifth channel is identified by Weston as "Mac Lane Channel," as described below. Figure 2-1 shows the locations of the five channels:

- Channel A is located entirely on the former Hatco property (currently Lanxess) and is the relocated channel of Crows Mill Creek, which flows southward to a culvert beneath Riverside Drive.
- Channel B is located on Lot 7, and generally parallels the western side of the Middlesex Water Company easement and flows southward to Channel A.
- The upper portion of Channel C is a drainage swale that originates in the grassed portion of the Crown Pacific property to the north and flows southward to Woodbridge Pond.
- The lower portion of Channel C discharges from the southeast corner of Woodbridge Pond, flowing eastward to Channel B and Channel A.
- Mac Lane Channel: A small unnamed channel extends from a storm water culvert beneath Mac Lane near the southwest corner of Woodbridge Pond. This channel has been designated "Mac Lane Channel" for purposes of this work plan. Flow on this channel is normally from the western side of Mac Lane toward Woodbridge Pond, based on recent observations and invert elevations presented on a "Construction Plan and profile – Industrial Highway Force Main As-Built" prepared by Ensurplan, Inc. on behalf of Industrial Highway Corporation and dated October 10, 1991.

The area of Channels A, B and C is designated as Hatco AOC-23. Contaminated soil and sediment were previously removed from AOC-23 as part of the remedial actions at the Hatco site.

Woodbridge Pond receives storm water runoff from upgradient areas to the north via the upstream portion of Channel C, which is a shallow intermittent drainage ditch (about 2 feet wide and 6 inches deep) that flows through a forested wetland for about 150 feet. The northern extent of both the channel and the forested wetland is delineated by an open lawn area at the Crown Pacific warehouse facility.

Outflow from the pond is through the downstream portion of Channel C, where it flows in an easterly direction into Channel B. Channel B flow combines with Channel A, then continues southward through a culvert under Riverside Drive.

As noted above, Mac Lane Channel connects a culvert at Mac Lane to the southwest corner of the pond. Historical sampling in the Mac Lane Channel confirmed that PCB and BEHP concentrations were below applicable criteria (refer to the Hatco RIR, Weston, 2016).

2.3.2 Soils and Geology

According to the Soils Geographic Information System (GIS) layer on NJGeoWeb, site soils are mapped as Atsion sand, 0 to 2 percent slopes. This soil is described as poorly drained with very high runoff. For this soil type, depth to groundwater is generally 0 to 12 inches. A small area of the site is Keyport sandy loam, 0 to 2 percent slopes. This soil is also poorly drained with very high runoff. Depth to groundwater for this soil type is reported at about 18 to 30 inches.

Woodbridge Pond lies within the northernmost extent of the Coastal Plain Province of New Jersey. Surficial geology is identified as Quaternary Age weathered coastal plain formations consisting of exposed sand and clay and including thin, patch alluvium and colluvium, and pebbles left from

erosion of surface deposits (NJGeoWeb). The Raritan Formation, described as clayey silt overlying quartz sand, underlies this surficial unit.

2.3.3 Hydrogeology

Pond bottom elevation ranges between 9.5 and 14 feet NAVD88, with the water level for the pond at around 14 feet NAVD88 as of the 2014 survey. According to groundwater measurements and a groundwater elevation contour map presented in the 2016 RIR, the water table elevation in the shallow, unconfined aquifer near the pond is approximately 14 feet NAVD88. Based on this comparison, Woodbridge Pond is an expression of the water table and is fed by both groundwater discharge and surface water runoff.

Woodbridge Pond is surrounded by wetlands. Figure 2-2 shows the extent of wetlands mapped in this area in 2006. Three types of wetlands are present and shown on Figure 2-2: State Open Water/Palustrine Aquatic Bed, Palustrine Emergent Wetlands and Forested Wetlands. This work plan has been designed to avoid impact to wetlands to the extent practicable. The wetland areas shown on Figure 2-2 will be field verified as part of the wetlands disturbance permit application process.

The pond shoreline is irregular and steep slopes are present along Mac Lane, the former Campbell's Clay Railroad and Riverside Drive. Vegetation present on the non-inundated portions of the parcel include small trees, brush and common reed.

2.4 REMEDIAL INVESTIGATION FINDINGS

Weston conducted several rounds of sampling to delineate PCB and BEHP contamination in sediment in AOC-24. This work was summarized in the 2016 RIR, and occurred between 2007 and 2014. Pond bottom samples were collected from more than 90 sediment cores. Lithology was recorded for all but 11 locations. The deepest cores reached 4.5 feet below the water/sediment interface. Stratigraphy beneath the pond generally consists of three layers: an organic silt, a variable layer that was either clay or a mixture of sand with silt and/or clay, and a deeper layer of medium to coarse sand.

Analytical results from the sediment samples found PCB and BEHP contamination at concentrations above 1 milligram per kilogram (mg/kg) PCBs and 22 mg/kg BEHP. The basis for these remediation goals is discussed in Section 6.0. The contaminated sediments are located in the eastern and central portions of the pond. The horizontal and vertical extent of the impacted sediment have been delineated. Figure 2-3 summarizes the PCB and BEHP in sediment data. The RIR concluded that remedial action was required.

NJDEP conducted an Ecological Component Review of the RIR submittal from May 7, 2016 and transmitted comments via memorandum dated August 22, 2016. Weston and LSRP Mark Fisher responded to the NJDEP's comments via letter on November 9, 2016, and a Technical Consultation meeting was subsequently held on February 21, 2017. A copy of the meeting summary memorandum prepared by the LSRP on March 9, 2017 is included as Appendix B. This RAWP Addendum is designed to address and satisfy NJDEP requirements in accordance with the conclusions reached in the Technical Consultation.

SECTION 3.0 PREVIOUS REMEDIAL ACTION

During implementation of the previously approved Consolidated RAWP shallow excavations, defined as "scrape areas," were completed throughout the Hatco site. The scrape areas were completed to remove contaminated media at selected locations. Several scrape area excavations removed contaminated soil and sediments from the upland portions of the Woodbridge Pond property as wells as Channels A, B and C. Results of this work were previously summarized in the following reports:

- Remedial Action Progress Report – Phase 1 Wetlands Remediation Summary, dated September 26, 2011;
- Morris Pond Delineation Progress Report, dated August 2012; and,
- Remedial Action Progress Report – Phase 2 Wetlands Remediation Summary, dated October 3, 2012.

One scrape area, X104, was completed within AOC-24. Results of this work were presented in the Morris Pond Delineation Progress Report, noted above. Contaminated soil and sediment were successfully removed from the limits of Scrape Area X104. However, as discussed in the report, additional contaminated sediment was detected within the pond. Removal of that additional contaminated sediment is the subject of the proposed remedial action.

SECTION 4.0 Extent of the Remediation Area

The remedial action described in this RAWP Addendum No. 4 addresses the removal of contaminated sediments in AOC-24. Figure 2-3 shows the sample results that have been used to design this remedial action.

Figure 2-4 shows the planned horizontal and vertical extent of the excavation. As discussed in Section 7.1.9, the final excavation extent will depend on the results of post-excavation sampling. The following estimated excavation quantities are based on removal of sediments to the limits shown on Figure 2-4.

- Approximately 195 cubic yards (CY) of sediment with PCB concentrations of 50 mg/kg or greater, to be handled and disposed as PCB Remediation Waste.
- Approximately 3,760 CY of sediment with a PCB content of less than 50 mg/kg, to be handled and disposed as non-hazardous solid waste.
- Estimated 3.8 million gallons of surface water to be removed during dredging, separated from the sediment using TenCate® Geotube® or similar technology, treated to remove solids, and discharged back to the pond under a New Jersey Pollution Discharge Elimination System - Discharge to Surface Water (NJPDES-DSW) permit.

SECTION 5.0 DESCRIPTION OF THE REMEDIAL ACTION

Wet dredging technology will be used to excavate impacted sediment for offsite disposal. Figure 2-4 shows the planned extent of the excavation.

Weston anticipates that physical removal of sediments exceeding remediation goals can be accomplished effectively via hydraulic dredging. The wet sediment will be pumped to the Hatco site for dewatering. During the dewatering, process water will be recovered for onsite treatment to remove sediments. The treated water will be discharged back into the pond in accordance with the NJPDES-DSW permit to be obtained for this project. Erosion protection for the outfall to the pond will be provided as required by the permit. Dewatered sediments will be disposed offsite after classification.

In accordance with the NJDEP's Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil, March 2015, Version 1.2, post-excavation samples will be collected to confirm remedial action effectiveness. After removing contaminated sediments, confirmatory post-excavation samples will be collected for laboratory analysis. Contingency samples will be collected and held by the laboratory for analysis in the event that a post-excavation sample result exceeds the remediation standard, as described in Section 7.1.9.

5.1 PUBLIC NOTIFICATION

The Administrative Requirements for Remediation of Contaminated Sites (ARRCS), N.J.A.C. 7:26C-1.6(h) requires that public notification be conducted within 14 days prior to commencing field activities associated with remedial action. Specifically, local and county government agencies, owners and tenants within 200 feet of the contaminated site must be notified via either a sign posting or a letter.

Because this RAWP Addendum No. 4 builds upon Weston's Consolidated RAWP submitted to the USEPA and the NJDEP on August 18, 2005, notification is provided on a biennial basis via letter. The most recent public notice was completed on August 15, 2017 and identified removal of contaminated sediments from the pond as an action being taken. A copy of the public notification will be submitted with the Remedial Action Report, to be prepared in accordance with N.J.A.C. 7:26E.

5.2 PRE-CONSTRUCTION SURVEY

A New Jersey Registered Professional Land Surveyor will survey baseline, pre-construction conditions and the wetlands delineation line before field mobilization. The surveyor will provide horizontal and vertical control, to be annotated on a final survey map. Vertical control for the survey will be provided in NAVD88 datum and horizontal control be tied to the NAD 83 state plane coordinate system, in US Survey Feet.

A base survey point will be installed next to Woodbridge Pond. A staff gauge will also be installed in the pond and surveyed to provide control on water level measurements. Post-excavation sample depths will be keyed to the pond bottom, and the water level at the time of sampling.

Prior to site preparation, an ecologist will inspect the pond for native wetlands vegetation present in the pond and note the depth requirements, if any, for the vegetation. This pre-construction pond vegetation survey will be used to verify that post sediment removal elevations are suitable for the re-establishment of existing native wetlands plant communities.

5.3 PUBLIC UTILITY MARKOUT

The remediation contractor will call for a utility mark out at least three business days before work begins and no more than ten business days prior to starting intrusive work. Utilities known to exist near the work area include overhead electric lines, a buried water line, a fire hydrant and storm sewer lines. Weston will document field mark outs. Work areas will be inspected for potential conflicts with underground utilities or overhead wire hazards.

5.4 MOBILIZATION

Equipment, supplies and personnel necessary to implement the remedial action will be mobilized to the site. Mobilization activities will include installation of soil erosion and sediment controls as well as preparation of work and support areas on the Hatco and Woodbridge Pond properties. Figure 5-1 shows the remedial action work areas.

Clearly demarcated work zones will be established including exclusion zones, support zones and contamination reduction zones. Lined decontamination pads will be established for equipment leaving the exclusion zones.

5.4.1 Soil Erosion and Sediment Controls

Prior to conducting the clearing, Weston will submit a Soil Erosion and Sediment Control Plan (SESCP) for certification by Freehold Soil Conservation District (FSCD). Required erosion control measures will be installed prior to work start. Weston will also ensure that the wetland general permit is in place prior to disturbing regulated wetland areas.

5.4.2 Woodbridge Pond Property Site Preparations

Equipment access to the pond is limited by steep slopes, dense vegetation and a buried water main. The contractor will clear an area to provide access to the pond for the dredging equipment. A temporary staging area will be constructed by placing clean sand fill material within a portion of the wetland and open water area. This fill material will serve as a working platform to support construction operations. A lined decontamination pad will be placed where the staging area meets the pond work area and will serve as the controlled access point for equipment and personnel entering and leaving the work zone within the pond. No contaminated material or equipment will come into direct contact with the clean sand fill in the Staging and Access Location.

The fill material for the staging and access location will be sand that meets the definition of clean fill presented in N.J.A.C. 7:26E-1.8. Samples will be collected and analyzed for LSRP review and approval as clean fill prior to bringing the material onsite.

After excavation activities are completed the clean sand fill material will be used as backfill material where necessary. The planned clearing for access and location of the construction support areas are shown on Figure 5-1.

5.4.3 Hatco Property Site Preparations

Equipment and materials will be mobilized to the Hatco site to construct the Sediment Dewatering Area, Construction Laydown and Support Area and the overhead conveyance piping as shown on Figure 5-1. Locations may be adjusted in accordance with approved permits and construction requirements. Sediment dewatering, water collection and treatment systems, and truck loading equipment will be located in the Sediment Dewatering Area. Supplies and equipment not actively in use will be staged in the Construction Laydown and Support Area.

Mobilization will include construction of conveyance piping to transport dredged sediment from the pond to the Sediment Dewatering Area on the Hatco site and to return treated water to an outfall at the pond. Double containment will be used for the pipeline that conveys contaminated sediment slurry from the pond to the dewatering area.

Sediment dewatering will take place in the lined Sediment Dewatering Area. A high density polyethylene (HDPE) geosynthetic liner, or similar water-tight liner, will be placed over the existing ground surface prior to establishing the dewatering area. Dewatering equipment, consisting of Geotubes®, filter presses, or similar technology will be placed on top of the liner. Sumps and/or collection trenches will be established at low points in the liner for recovery of water that drains from the dewatering equipment. The water will be conveyed to an onsite temporary treatment plant prior to discharge to the pond in accordance with applicable permits. Recovered water will be fully contained and will not come into direct contact with soil or sediment prior to treatment and discharge back to Woodbridge Pond.

Construction of the sediment dewatering area will include a lined containment system and sumps which will collect water drained from the sediment and convey it to an onsite temporary treatment plant. The sediment dewatering area will be constructed to maintain two separate waste streams. Sediment removed from areas of the pond that contain PCB concentrations of 50 mg/kg or greater will be handled separately from sediment removed from other areas of the pond.

5.5 MANAGEMENT OF FISH, AMPHIBIANS AND REPTILES

Because the pond sediment is PCB-impacted, it is assumed that the fish are contaminated. Therefore, the fish will be euthanized prior to sediment removal. Fish will be euthanized and removed in accordance with applicable permit requirements. Reptiles and amphibians, if encountered and captured, will be relocated to previously restored wetland areas on the Hatco site.

5.6 SEDIMENT EXCAVATION AND DEWATERING

Sediments will be excavated by hydraulic dredging using Mud Cat™ or similar equipment. The pond bottom will be dredged to the elevations shown on Figure 2-4. This figure was developed by assessing the depth of vertical delineation samples demonstrating PCB and BEHP concentrations below remediation goals, contouring this information, and overlaying a dredging grid. Once the

elevations shown on Figure 2-4 are achieved for a given area, post-excavation sediment sampling will occur.

The dredge will be equipped with bottom weighted turbidity curtains to minimize sediment transport. The wet sediment will be pumped through flexible hoses or tubing directly to overhead piping on the Hatco site or to an above-ground tank that will be located in an accessible area east of the Middlesex Water Company easement. An example location is shown on Figure 5-1; the final location will be subject to NJDEP approval of the applicable permits and selection of specific remediation equipment. No heavy equipment will be located on or will cross the water pipe. If necessary, a booster pump will be used to pump the dredged material from the tank to the Sediment Dewatering Area via overhead piping. If no booster pump is necessary, the dredge will pump directly to the overhead piping. The need for a booster pump will be determined as part of the final design and remediation equipment selection. The conveyance system will be designed to allow direct pumping into Geotube®, filter press or other appropriate technology for dewatering the sediments.

Sediment from areas of the pond where previous sampling identified PCB concentrations in excess of 50 mg/kg will be excavated, processed and disposed separately from other sediments. Areas of the pond where previous sampling identified PCB in sediment concentrations between 1 mg/kg and 50 mg/kg and/or BEHP concentrations greater than 22 mg/kg, will be processed in the non-hazardous waste stream. These two areas will be dredged separately, either by using dedicated equipment or by sequencing.

Sediment will be pumped to and contained within the dewatering equipment. Depending on the final dewatering technology selected, sediment dewatering is expected to take between two weeks (filter press-type technology) and three months (Geotube® or similar technology). The contractor will conduct a pilot test to design the final dewatering system and to determine the approximate length of time needed for the sediment to dewater sufficiently for transport and offsite disposal.

5.7 SURFACE WATER TREATMENT AND DISCHARGE

During the dewatering process, water recovered from the sediments will be pumped to a temporary treatment system onsite. It is expected that the required treatment will be limited to solids removal. Water will be treated to meet the permit requirements and will be discharged back into the pond at the outfall location shown on Figure 5-1. The outfall may be relocated, if required, subject to permit approval.

The temporary treatment system will provide sediment removal prior to returning the recovered water back to the pond. The plant will be designed and operated in a manner consistent with the NJPDES-DSW permit. Treatment plant effluent will be tested at the frequency and for the parameters specified in the NJPDES-DSW permit.

5.8 WASTE CLASSIFICATION AND HANDLING

Wastes generated by the temporary treatment system will be handled as investigation derived waste, characterized and disposed at an appropriate offsite disposal facility. The following types of wastes are anticipated as part of this remedial action:

- Spent decontamination liquids;
- Dewatered sediment from locations with PCB concentrations of 50 mg/kg or more;
- Dewatered sediment from locations with PCB concentrations less than 50 mg/kg;
- Solid residuals and/or filtrate from the temporary treatment system; and
- Other solid waste including used Personal Protective Equipment (PPE) such as gloves, boot covers, and disposable coveralls, disposable sampling equipment such as spatulas, plastic sheeting, silt fence, and liner materials used in the work area.

Waste generated during this project will be segregated according to the waste streams identified above. Samples will be collected from each waste stream for waste classification analysis and the waste will be transported to a licensed waste disposal facility. Dewatered sediment will be characterized for disposal, with samples collected at the frequency and analyzed for the parameters required to meet the acceptance criteria of the disposal facility. Initial waste characterization samples will be collected during final design and testing of the treatment system. If additional waste classification samples are needed, they will be collected after the sediments have been adequately dewatered.

Decontamination liquids will be containerized, characterized and appropriately disposed. Remediation waste that contains 50 mg/kg or greater of PCBs will be handled, stored and managed in accordance with applicable TSCA requirements. A central Resource Conservation and Recovery Act (RCRA) waste storage area managed by Weston already exists on the Hatco site. If hazardous waste is generated during this project, it will be placed into drums and relocated to the central RCRA waste storage area for management with other hazardous waste generated during the Hatco remediation project.

5.9 TRANSPORTATION AND DISPOSAL

Once the sediment is drained the sediment dewatering tubes will be cut open and loaded via heavy equipment such as front end loaders into trucks, along with the dewatering system fabric. The loading will occur in the Sediment Dewatering Area shown on Figure 5-1.

Prior to leaving the site, trucks will be inspected to confirm that a cover has been placed securely over the contents of the truck to prevent airborne release of material during transport.

All waste will be recorded on manifests as hazardous or non-hazardous as discussed above. Transportation will be provided by properly licensed waste haulers for the class of material being shipped. Dewatered sediments will be disposed offsite at facilities permitted and approved for the waste stream being processed. Dewatered sediment with PCB content of 50 mg/kg or greater will be shipped to a facility permitted to handle TSCA waste. Non-TSCA waste will be sent to a facility permitted to handle waste impacted with PCBs at less than 50 mg/kg and BEHP.

Waste shipments will be recorded and tracked on manifests which Weston will sign as the Generator using the USEPA Generator Identification Number for the Hatco remediation project NJR000020701. Copies of the manifests will be provided in the Remedial Action Progress Report (RAPR) for this work and the final Remedial Action Report (RAR) for the Hatco project.

SECTION 6.0 REMEDIATION STANDARDS

NJDEP and USEPA concurred on the following Alternative Remediation Standards as remediation goals for Woodbridge Pond sediment:

- 22 mg/kg (dry weight basis) for BEHP as discussed with NJDEP at a Technical Consultation on March 6, 2015 and documented in a memorandum from LSRP Mark Fisher to NJDEP Kevin Schick on May 7, 2015. (see Appendix D); and

- 1 mg/kg (dry weight basis) for PCBs in sediment as described in the Risk Based Disposal Approval letter from USEPA dated March 30, 2005 (see Appendix A).

A completed Alternative or new Remediation Standard and/or Screening Level Application Form accompanies this RAWP Addendum No. 4.

SECTION 7.0 POST-EXCAVATION SAMPLING PLAN

7.1 POST-EXCAVATION SEDIMENT SAMPLING

7.1.1 Post-Excavation Sample Locations

Each post-excavation sample will be collected as soon as practicable after the associated portion of the pond bottom has been excavated to the target elevation. Planned post-excavation sample locations are shown on Figure 7-1. Table 7-1 identifies the planned post-excavation samples including sample type, target elevations and depths below surface water (based on a surface water elevation of 14.0 feet NAVD88), sample identification and target coordinates.

Post-excavation samples will be collected as close as practicable to the pre-defined grid nodes. Sampling may be conducted by personnel on the barge that supports the dredging equipment or using a separate platform or boat.

Post-excavation samples will be collected from the bottom and sidewalls of the excavated area in the pond. Samples will be collected at the base and at the top of the sidewalls at the points where the perimeter of the excavation intersects the grid rows and columns.

Contingency samples will be collected one foot below the bottom of the excavation at each of the bottom locations. Contingency step-out sidewall samples will be collected from the 0.0 to 0.5-foot depth interval in the unexcavated pond bottom approximately 5 feet radially outward from each of the post-excavation sidewall locations. If the top of the excavation is 5 feet or less from the soil at the edge of the pond, the horizontal contingency sample will be collected from sediment at the edge of the pond.

Figure 7-1 shows the excavation area and the entirety of Lot 7 with a 30-foot by 30-foot sampling grid overlay. Only portions of the grid falling within the excavation area will be sampled. Bottom sediment samples will be collected near grid nodes as shown on the figure. Longitudinal grid lines are given alphabetical designations AA through CL and latitudinal grid lines are identified as 01 through 58. Two sidewall samples will be collected at the perimeter of the excavation, one where the grid line meets the base of the excavation and the other where the grid line meets the top of the excavation.

7.1.2 Pre-Excavation Verification Samples

Certain of the samples previously collected and analyzed during the RI will serve as pre-excavation verification samples. At these locations the excavation will be dredged to predetermined, surveyed limits with no additional post-excavation sampling. The following locations were identified by Weston and agreed upon in discussions with USEPA and the LSRP:

- Weston will rely upon the following RI-phase bottom samples to show vertical delineation: CP-37, CP-44, CP-45, CP-54 and CP-64; no other RI-phase sample locations will be used for depth verification; and

- Weston will rely upon RI-phase sample locations CP-42 and CP-43 to provide sidewall verification. No other RI-phase samples will be used for sidewall verification.

The following exceptions are noted to post-excavation sampling at the grid nodes shown on Figure 7-1:

- RI phase sample CP-42-AA-AB-0 will be used in lieu of collecting new post-excavation sidewall top sample at grid node BA25. This sample was collected at 0.0 to 0.5 feet below the pond bottom (Elevation 12.0 to 12.5 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase sample CP-42-AE-AF-0 will be used in lieu of collecting new post-excavation sidewall bottom sample at grid node BA25. This sample was collected at 2.0 to 2.5 feet below the pond bottom (Elevation 10.0 to 10.5 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase sample CP-37-AE-AF will be used in lieu of collecting a new post-excavation bottom sample at grid node BE25. This sample was collected at 2.0 to 2.5 feet below the pond bottom (Elevation 10.0 to 10.5 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase sample CP-43-AA-AB-0 will be used in lieu of collecting new post-excavation sidewall top sample at grid node BA31. This sample was collected at 0.0 to 0.5 feet below the pond bottom (Elevation 11.5 to 12.0 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase sample CP-43-AE-AF-0 will be used in lieu of collecting new post-excavation sidewall bottom sample at grid node BA31. This sample was collected at 2.0 to 2.5 feet below the pond bottom (Elevation 9.5 to 10.0 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase samples CP-44-AA-AB-0, CP-44-AC-AD-0 and CP-44-AE-AF-0 will be used in lieu of collecting a new post-excavation sample at grid node BB34. These samples were collected at depths between 0.0 and 2.5 feet below the pond bottom (Elevation 8.5 to 11.0 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase samples CP-45-AA-AB-0, CP-45-AC-AD-0 and CP-45-AE-AF-0 will be used in lieu of collecting a new post-excavation sample at grid node BE34. These samples were collected at depths between 0.0 and 2.5 feet below the pond bottom (Elevation 9.0 to 11.5 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase sample CP-54-AA-AB-0 will be used in lieu of collecting a new post-excavation bottom sample at grid node BE43. This sample was collected at 0.0 to 0.5 feet below the pond bottom (Elevation 9.5 to 10.0 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- RI phase samples CP-64-AA-AB-0, CP-64-AC-AD-0 and CP-64-AE-AF-0 will be used in lieu of collecting a new post-excavation sample at grid node BB46. These samples were collected at depths between 0.0 and 2.5 feet below the pond bottom (Elevation 7.5 to 10.0 feet NAVD88). Analytical results were below the remediation goals for PCBs and BEHP;

- A bottom sample will not be collected at grid node BQ31. Instead, a sample will be collected ten feet to the west (to be designated node BP31) so that the bottom sample falls in the deepest portion of the excavation in this area;

- A bottom sample will not be collected at grid node BQ40. Instead, a sample will be collected ten feet to the west and 10 feet to the north (to be designated node BP39) so that the bottom sample falls in the deepest portion of the excavation in this area;

- A bottom sample will not be collected at grid node BK46. Instead, a sample will be collected approximately 10 feet further east (to be designated node BL46) so that the bottom sample falls in the deepest portion of the excavation in this area.

7.1.3 Excavation Depth Verification

Prior to sampling the sampler will verify the target depth for the pond bottom and verification sampling. The depth will be calculated by subtracting the target pond bottom elevation at the sample coordinates from the surface water elevation measured at the staff gauge. For example, the target pond bottom elevation at grid coordinate BT37 is 9.0 feet NAVD88. Assuming the staff gauge reads 14.1 feet, the target depth for the pond bottom will be 5.1 feet.

After dredging has been completed in an area of the pond the sampling team will navigate to the sample grid coordinates. The field team will measure the depth to the pond bottom prior to sampling and verify that the measurement is within 0.5 feet of the target depth.

If the pond bottom is determined to be more than 0.5 feet shallower than the target elevation the remediation contractor will be instructed to return to the area and remove the material necessary to achieve the target elevation. If the pond bottom is determined to be more than 0.5 feet deeper than the target elevation, the sample will be collected. Sample depth codes will be adjusted accordingly (see Section 7.1.7).

7.1.4 Post-Excavation Sample Collection Procedures

The remediation contractor, Weston, or a specialty subcontractor will collect the post-excavation sample using a sediment coring device. Sediment coring tools will consist of steel core barrels with disposable transparent polyethylene liners. A slam-bar, slide hammer or equivalent method will be used to drive the coring device 1.5 to 2.0 feet below the water/sediment interface.

The coring tools and rods will be assembled. A core catcher will be inserted to retain the sample during extraction. Two feet will be added to the verified pond bottom depth to indicate the target distance to drive the sampling device. This distance will be indicated clearly on the rods using chalk, tape or other visible, removable marking.

The sampling assembly will be lowered to the bottom of the pond. The sampling assembly will then be driven approximately two feet into the pond bottom, or until refusal is met. The sampler will be driven approximately one foot into the pond bottom at the sidewall contingency step-out sample locations.

The sampler will record the actual distance the sampling device was driven using the two-foot mark as a guide. The sampling device will then be retrieved by slowly loosening from the subsurface using a jack or other means as necessary.

The recovered sample will be maintained in a vertical position. The transparent polyethylene liner will be removed from the core barrel and examined for sample recovery. The total length of sample material will be measured and recorded. The top of the sample will be marked on the outside of the liner. If the sample cannot be processed immediately, the ends of the liner will be capped.

7.1.5 Sediment Sample Processing

Cores will be relinquished to an onsite Weston scientist who will log the sediments, collect samples and record sampling data on Soil Logs and Chain-of-Custody forms. The sample collection process is as follows:

- If excess free liquid is present in the recovered sample, the excess liquid will be drained prior to sample processing. If the upper portion of the sediment sample is primarily liquid, small holes (e.g., approximately $^{1}/_{16}$-inch diameter) will be drilled through the liner to allow excess water to drain. If no evidence of contamination is present (e.g., petroleum-like sheen or chemical odor), the water will be allowed to drain back to the pond. If there is evidence of contamination the excess water will be containerized and managed as investigation derived waste. The sample will be allowed to drain sufficiently for handling in the field. Once the field team has determined that sufficient water has drained form the material, the length of recovery will be measured again and recorded.

- The liner containing the recovered sample will be placed horizontally and cut open lengthwise to expose the sample material.

- The sample lithology will be described. Sample intervals will be selected based on the original, undrained recorded length of the sample core. Compression will be calculated based on the thickness of the soft sediment layer, if present.

- Sample material will be transferred directly from the core liner to laboratory-prepared sample containers. For cases where the sediment recovered in the core exceeds the amount required for laboratory analysis, the sample will be placed in a stainless steel bowl and homogenized using either a stainless steel spatula or dedicated disposable spatula prior to placing the sample in laboratory-provided sample containers. Excess sediment will be containerized with other solid waste (e.g., used PPE and disposable equipment) for offsite disposal. The bowl and spatula will be decontaminated prior to each use and the decontamination liquids containerized for off-site disposal following the sampling event.

Decontamination will be performed as described in Section 3.4 of the Quality Assurance Project Plan (QAPP) (see Appendix E).

- If the target depth is not reached due to refusal or sample loss, a second core will be attempted next to the original core location. If a second attempt does not achieve the targeted sampling depth, the sample will be collected from the deepest interval recovered.

Confirmatory verification samples and sidewall step-out contingency samples will be collected from the 0.0 to 0.5-foot interval in each core. Bottom contingency samples will be collected from the 1.0 to 1.5-foot depth interval in each core. Excess sample material will be placed into a container for management with other solid investigation-derived waste (see Section 5.8).

7.1.6 Field Quality Control Sample Collection

The following quality control samples will be collected in the field as described in the QAPP (Appendix E) and QAPP Addendum 2 (Appendix F).

- Laboratory-blind duplicate samples (1 per 20 field samples)
- Contingency laboratory-blind duplicate samples (1 per 5 samples collected; 1 per 20 contingency samples analyzed)
- Matrix spike/matrix spike duplicate samples – to be collected at the same frequency as the laboratory-blind and contingency laboratory-blind duplicate samples.
- Field Blank Samples: 1 for each day of sampling when reusable, decontaminated sampling equipment is used.

7.1.7 Sample Identification

Post-excavation samples will be named using the following convention:

Area-Sample type-Location-Depth to top code-Depth to bottom code-QC type-Date

The components of the sample name will be identified as follows:

- Area: Two characters designating the remediation area “WP” for Woodbridge Pond.
- Sample type:
  - PB for pond bottom samples
  - SB for side-wall samples collected at the bottom of the excavation
  - ST for post-excavation side-wall samples collected at the top of the excavation
  - The letter “C” is appended for contingency samples collected vertically below the bottom of the excavation or stepped out horizontally beyond the sidewall.
- Location: Two letters and two numbers indicating the nearest grid coordinates. The grid coordinate system shown on Figure 7-1 includes nodes at 30-foot intervals. However, the naming system will allow for naming at 10-foot intervals to accommodate adjustments that may be needed in the field. Grid rows are numbered from north to south and columns alphabetically from east to west. For example, a sample collected 10 feet east of grid column BB and 10 feet south of grid row 22 would be identified as location BC23.

- Depth to top and depth to bottom will be measured to the nearest 0.5 feet below the pond bottom at a given location. The depths will be assigned using letter codes as specified in the QAPP (e.g. A = 0.0 feet, B = 0.5 feet, etc…).
- QC type: "0" designates a field sample. "1" designates a duplicate sample. "2" designates a field blank sample. "MS" designates a matrix spike sample. "MSD" designates a matrix spike duplicate sample.
- Date: Six-digit date code indicating the month, day and year.

Verification and contingency sample identifications are presented on Table 7-1.

7.1.8 Verification Sample Analysis

The post-excavation bottom and sidewall samples and contingency samples will be submitted to an NJDEP-certified laboratory. The samples will be managed using chain of custody procedures as described in the QAPP.

The laboratory will be instructed to hold the contingency samples. The post-excavation verification samples will be analyzed for PCBs by SW-846 Method 8082 and BEHP by SW-846 Method 8270. The samples will be analyzed using an accelerated laboratory analytical turnaround time.

7.1.9 Contingency Sample Analysis and Further Excavation

If any of the post-excavation verification sample results exceed the applicable criteria (1 mg/kg total PCBs and 22 mg/kg BEHP), then the associated contingency sample will be analyzed to evaluate the depth and/or horizontal extent of further dredging. Reported concentrations will be rounded to the nearest whole number. If the contingency sample results meet the criteria the dredge will be extended one foot deeper (if the original bottom sample failed) or five feet horizontally (if the original sidewall sample failed) at that location. The contingency sample will serve as the verification sample and no further sampling will be required at this location.

If the contingency sample results exceed the criteria then further evaluation may be required before extending the excavation at that location. The extent of further excavation beyond the contingency samples, if necessary, will be discussed with the LSRP and USEPA before proceeding.

7.2 QUALITY CONTROL AND DATA USABILITY ASSESSEMENT

A Hatco site QAPP was approved as part of RAWP Addendum 3 (Weston, August 2009). A copy of that QAPP is included as Appendix E and an addendum specific to this RAWP is Appendix F.

A Data Usability Assessment (DUA) will be conducted in accordance with Data Quality Assessment and Data Usability Evaluation Technical Guidance (NJDEP, Version 1.0, April 2014). In accordance with the guidance, usability assessments will be made with respect to precision, accuracy, representativeness, comparability, completeness and sensitivity. Data usability will consider the following types of information:

- Blank samples – field blanks and laboratory blanks
- Duplicate samples – field duplicates and laboratory duplicates

- Matrix spikes – project-specific samples will be submitted for use as matrix spike samples
- Laboratory control samples
- Initial and continuing calibration records from the analytical laboratory
- Laboratory internal Quality Assurance (QA) assessment and conclusions
- Method detection limits
- Field documentation (chain-of-custody forms, field notes and sediment logs)
- Sample log-in information and holding times
- Sample location records

QA limits are provided in the QAPP Addendum (Appendix F). The DUA will be performed for each package of analytical data received by Weston with the goal of making a timely response to quality issues. The DUA will be summarized and presented in the RAPR to be issued for Woodbridge Pond and the DUA will result in a conclusion regarding the usability of the data generated in this investigation for the intended purpose of confirming remedial action effectiveness for future unrestricted site use.

7.3 EQUIPMENT DECONTAMINATION

At the completion of this program, heavy equipment used for this project will be decontaminated in specific decontamination areas in AOC-24 and the Hatco site. The decontamination areas for heavy equipment will lined and provided with a collection system. Potentially contaminated equipment will remain in work or exclusion zones until decontaminated. Decontamination procedures are described in Section 3.4 of the QAPP.

Heavy equipment will be decontaminated using a power washer/steam cleaner. Rinse water will be collected and managed with other waste for offsite disposal. If heavy equipment potentially contacted sediment containing 50 mg/kg of PCBs or greater, then wipe samples will be collected to confirm the efficacy of the decontamination process. The wipe samples will be analyzed for PCBs. If wipe sample PCB results exceed 10 micrograms per wipe (µg/wipe) of 100 square centimeters then the decontamination and wipe sampling process will be repeated until satisfactory results are obtained.

Reusable sampling equipment, if needed, will be decontaminated prior to use at each sample location and prior to removal from the site. The decontamination area will be done in a designated area in AOC-24 or within the construction support area on the Hatco site. Rinse water will be containerized for classification and offsite disposal.

SECTION 8.0 PERIMETER AIR MONITORING AND DUST CONTROL

Appendix G presents the Air Monitoring and Odor Control Program for this project. The remediation program is designed to remove contaminated sediment using wet dredge techniques. The contaminants are not volatile but may be present in particulates. Particulates may be generated during handling of the dewatered sediment.

The contractor will be required to maintain a dust control system in place in the event that unacceptable dust levels are recorded. The system may include water and/or a non-toxic, non-hazardous foam agent, or other means demonstrated to not result in environmental impact.

SECTION 9.0 PERMITS REQUIRED

The following permits have been identified as possible requirements based on the current scope.

- LSRP, USEPA and NJDEP approval of this RAWPA Addendum No. 4
- Flood Hazard Area (FHA) Permit by Rule or Individual Permit
- Scientific Collection Permit
- New Jersey Pollution Discharge Elimination System Discharge to Surface Water (NJPDES-DSW), General Permit for Groundwater Remediation (Category BGR)
- Freshwater Wetlands General permit for Hazardous Site Investigation and Cleanup General Permit GP-4, which will include verification of the wetlands delineation
- Stormwater General Permit for Construction Activities
- Soil Erosion and Sediment Control Plan (SESCP) certification
- Local construction, fire and electrical permits

Because the remediation goals result in unrestricted future site use, no remedial action permits will be required following completion of the remedial action.

Weston will schedule a pre-application meeting with NJDEP to confirm the final permit requirements. Weston previously met with NJDEP on July 15, 2013, to review permit requirements for this project. Notes from that meeting are provided in Appendix C. Because the project design has changed since that meeting, the current plan is not expected to require a Water Lowering Permit.

In addition, an organoclay cap was proposed as part of the 2013 remediation; this cap will not be needed for the current remediation, which will result in unrestricted future use. The 2013 pre-application conference also focused on whether the organoclay cap would violate FHA rules requiring no net fill of a flood zone. This potential impact is eliminated by the current plan, which will not utilize a cap and will result in an increase in the pond capacity by removal of sediment.

SECTION 10.0 FILL USE PLAN

Clean sand fill will be imported to construct a work area in the southwestern corner of Woodbridge Pond. Imported fill material will meet the definition of "clean fill" at N.J.A.C. 7:26E-1.8 and will be subject to pre-approval by the LSRP.

To verify the condition of the fill and provide quality control, Weston will inspect the source of the fill, review the compliance history for the source (as available through Dataminer and NJGeoWeb) and inspect the loads as they are delivered and before they are placed. If a load is observed to contain foreign matter or appears to be inconsistent with the source material, based on visual inspection, the load will be rejected and sent back to the facility providing the fill. The sand fill will not contain any hazardous waste or free liquid.

The fill will initially be placed on land southwest of the pond (see Figure 5-1) to create an access pad and support zone for the dredging operation. After dredging is complete, the fill pad will be moved into the pond for use to restore the pond bottom (see Section 11.2). The dredging will deepen the pond, enhancing the habitat for fish. However, if some areas of the pond become too deep to support aquatic vegetation, the fill material will be used to raise those areas as required for the plants to repopulate. The final pond bottom depth requirements will be determined in consultation with NJDEP during the permit application process and will consider Woodbridge Township's planned use of the pond to include recreational fishing.

SECTION 11.0 SITE RESTORATION

Site remediation will include construction support and dewatering areas on the Hatco site (these are located in uplands), the pond and access points within wetlands. Figure 5-1 shows the approximate location of these areas.

11.1 RESTORATION OF WORK AREAS ON HATCO SITE

Work areas on the Hatco site will be located in upland areas, outside of wetlands. Liners placed in work areas will be removed and appropriately disposed. Gravel in work areas may be left in place or regraded at the direction of the property owner. Areas that are disturbed by heavy equipment will be restored by grading. Soil erosion and sediment control measures will remain in place until inspection and approval by the FSCD.

11.2 POND RESTORATION

Pond restoration includes State Open Water and Palustrine Emergent Wetlands. The shallow regions of the pond are seasonally inundated and have been identified as part of the wetlands evaluation required for the General Permit. Figure 2-2 shows the approximate extent of the wetland areas, to be field verified by Weston and approved by NJDEP as part of the General Permit process.

Generally, open water areas will be left at post-sediment removal elevations while areas containing emergent vegetation will be returned to an elevation appropriate for the re-establishment of wetlands vegetation. Sidewall slopes will not exceed 3:1 (Horizontal:Vertical) for the final restoration.

Pond restoration will include moving clean fill that was used as a temporary working platform during the excavation into the deeper excavation areas. An inspection of the flora and fauna present in the pond will be made prior to the remedial action. Approximately 1/3 of the pond will not be disturbed by this dredging project and vegetation from that portion of the pond can provide the seed source for the disturbed area. Planting of pond (aquatic bed) or wetland (emergent) vegetation is not proposed at this time. To enhance fish habitat, Weston proposes to retain the post-sediment removal pond bottom contours and exposed substrate (anticipated to be sand) wherever practicable.

11.3 WETLAND RESTORATION

This RAWP Addendum No. 4 has been designed to minimize forested wetland disturbance. If disturbed, forested wetland areas will be restored in accordance with the Wetlands GP-4 permit. This plan anticipates establishment of appropriate grades where native/noninvasive wetlands vegetation is present and allowing natural revegetation from existing seed sources. In areas of open water and where non-native and/or invasive species are present grades will be left at post-sediment removal elevations to increase vegetation community heterogeneity and enhance fish habitat.

11.4 PERMIT CLOSE OUT

Weston will confirm that permit conditions have been satisfied and arrange for inspections or submittals necessary to close out the permits associated with this remedial action. Copies of agency approvals and details of permit close out procedures will be provided in the RAPR and RAR, if available.

11.5 WETLAND MONITORING ACTIVITIES

In accord with permit terms, wetland plantings will be monitored to confirm that the required survival rate is achieved. Inspection documentation will be provided as required by the permit.

SECTION 12.0 REMEDIAL ACTION SCHEDULE

12.1 OFFSITE ACCESS

Woodbridge Township is the sole owner of Block 71, Lot 7. Weston already has an access agreement in place with Woodbridge Township and will provide Woodbridge Township with a copy of this RAWP. Owner approvals are anticipated to be confirmed within one month of approval of this RAWP.

The Hatco site recently changed ownership from Chemtura to Lanxess. Implementing this RAWP Addendum will require coordination with Lanxess under the existing access agreement, which Lanxess has accepted as part of the purchase.

12.2 APPROVALS

The following approvals will be required:

- Woodbridge Township, as property owner for Lot 7
- Lanxess, as property owner for the Hatco site
- USEPA for TSCA-regulated sediments (those with a PCB content of 50 mg/kg or greater)
- NJDEP for sediment remediation and applicable permits
- LSRP
- FSCD

12.3 PROJECTED REMEDIAL ACTION SCHEDULE

The projected remedial action schedule is shown below. This schedule is subject to change pending receipt of final regulatory approvals.

Schedule	Task
Sep – Oct 2017	Regulatory review and approval of RAWP Addendum 4
Nov – Dec 2017	Permit applications and owner approvals
Jan – Mar2018	Permit review and approvals
Apr 2018	Final planning and mobilization
May – Jul 2018	Sediment dredging and pond restoration
Jul – Sep 2018	Sediment dewatering, offsite disposal and final construction support area restoration (timeframe will depend on dewatering technology and sediment behavior)
Oct – Dec 2018	Draft RAPR for Woodbridge Pond (schedule will be subject to stakeholder review timeframes)
May 2021	Final Hatco RAR

TABLES

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
AT	34	12.5	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AT34-I-J-0-MoDaYr	542,056	613,858	
AT	34	12.5	12.5	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AT34-D-E-0-MoDaYr	542,056	613,858	
AT	34	12.5	12.5	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AT34-D-E-0-MoDaYr	542,046	613,858	Step out 10 ft W
AT	36	12.1	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AT36-I-J-0-MoDaYr	542,058	613,832	
AT	36	12.1	12.1	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AT36-D-E-0-MoDaYr	542,058	613,832	
AT	36	12.1	12.1	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AT36-D-E-0-MoDaYr	542,048	613,832	Step out 10 ft W
AV	32	12.2	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AV32-I-J-0-MoDaYr	542,084	613,874	
AV	32	12.2	12.2	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AV32-D-E-0-MoDaYr	542,084	613,874	
AV	32	12.2	12.2	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AV32-D-E-0-MoDaYr	542,084	613,884	Step out 10 ft N
AV	34	12.0	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-AV34-A-B-0-MoDaYr	542,084	613,858	
AV	34	12.0	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-AV34-C-D-0-MoDaYr	542,084	613,858	
AV	37	11.5	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AV37-I-J-0-MoDaYr	542,084	613,827	
AV	37	11.5	11.5	Sidewall Top	Primary	11.0 - 11.5	2.5 - 3.0	WP-ST-AV37-F-G-0-MoDaYr	542,084	613,827	
AV	37	11.5	11.5	Sidewall Stepout	Contingency	11.0 - 11.5	2.5 - 3.0	WP-STC-AV37-F-G-0-MoDaYr	542,084	613,817	Step out 10 ft S
AW	43	10.5	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AW43-I-J-0-MoDaYr	542,093	613,768	
AW	43	10.5	10.5	Sidewall Top	Primary	10.0 - 10.5	3.5 - 4.0	WP-ST-AW43-H-I-0-MoDaYr	542,093	613,768	
AW	43	10.5	10.5	Sidewall Stepout	Contingency	10.0 - 10.5	3.5 - 4.0	WP-STC-AW43-H-I-0-MoDaYr	542,083	613,768	Step out 10 ft W
AW	46	11.8	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AW46-I-J-0-MoDaYr	542,090	613,738	
AW	46	11.8	11.8	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-AW46-E-F-0-MoDaYr	542,090	613,738	
AW	46	11.8	11.8	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-AW46-E-F-0-MoDaYr	542,080	613,738	Step out 10 ft W
AW	48	12.5	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AW48-I-J-0-MoDaYr	542,088	613,715	
AW	48	12.5	12.5	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AW48-D-E-0-MoDaYr	542,088	613,715	
AW	48	12.5	12.5	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AW48-D-E-0-MoDaYr	542,081	613,708	Step out 10 ft SW
AY	32	12.2	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AY32-I-J-0-MoDaYr	542,114	613,883	
AY	32	12.2	12.2	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AY32-D-E-0-MoDaYr	542,114	613,883	
AY	32	12.2	12.2	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AY32-D-E-0-MoDaYr	542,114	613,893	Step out 10 ft N
AY	34	11.4	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-AY34-A-B-0-MoDaYr	542,114	613,858	
AY	34	11.4	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-AY34-C-D-0-MoDaYr	542,114	613,858	
AY	37	11.5	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-AY37-I-J-0-MoDaYr	542,114	613,828	
AY	37	11.5	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-AY37-C-D-0-MoDaYr	542,114	613,828	
AY	38	11.6	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AY38-I-J-0-MoDaYr	542,114	613,822	
AY	38	11.6	11.6	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-AY38-E-F-0-MoDaYr	542,114	613,822	
AY	38	11.6	11.6	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-AY38-E-F-0-MoDaYr	542,107	613,815	Step out 10 ft SW
AY	40	11.2	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AY40-I-J-0-MoDaYr	542,116	613,798	
AY	40	11.2	11.2	Sidewall Top	Primary	11.0 - 11.5	2.5 - 3.0	WP-ST-AY40-F-G-0-MoDaYr	542,116	613,798	
AY	40	11.2	11.2	Sidewall Stepout	Contingency	11.0 - 11.5	2.5 - 3.0	WP-STC-AY40-F-G-0-MoDaYr	542,106	613,798	Step out 10 ft W
AY	42	10.4	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-AY42-I-J-0-MoDaYr	542,114	613,775	
AY	42	10.4	10.4	Sidewall Top	Primary	10.0 - 10.5	3.5 - 4.0	WP-ST-AY42-H-I-0-MoDaYr	542,114	613,775	
AY	42	10.4	10.4	Sidewall Stepout	Contingency	10.0 - 10.5	3.5 - 4.0	WP-STC-AY42-H-I-0-MoDaYr	542,107	613,782	Step out 10 ft NW
AY	43	10.4	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-AY43-I-J-0-MoDaYr	542,114	613,768	
AY	43	10.4	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-AY43-C-D-0-MoDaYr	542,114	613,768	
AY	46	11.0	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-AY46-I-J-0-MoDaYr	542,114	613,738	
AY	46	11.0	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-AY46-C-D-0-MoDaYr	542,114	613,738	
AY	48	12.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-AY48-K-L-0-MoDaYr	542,114	613,715	
AY	48	12.5	12.5	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-AY48-D-E-0-MoDaYr	542,114	613,715	

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
AY	48	12.5	12.5	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-AY48-D-E-0-MoDaYr	542,114	613,705	Step out 10 ft S
BA	22	13.0	11.0	Sidewall Base	Primary	10.5 - 11.0	3.0 - 3.5	WP-SB-BA22-G-H-0-MoDaYr	542,142	613,978	
BA	22	13.0	13.0	Sidewall Top	Primary	12.5 - 13.0	1.0 - 1.5	WP-ST-BA22-C-D-0-MoDaYr	542,142	613,978	
BA	22	13.0	13.0	Sidewall Stepout	Contingency	12.5 - 13.0	1.0 - 1.5	WP-STC-BA22-C-D-0-MoDaYr	542,132	613,978	Step out 10 ft W
BA	25	12.5	12.0	Sidewall Base	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-42-AE-AF-0
BA	25	12.5	12.5	Sidewall Top	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-42-AA-AB-0
BA	28	12.5	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-BA28-I-J-0-MoDaYr	542,140	613,918	
BA	28	12.5	12.5	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-BA28-D-E-0-MoDaYr	542,140	613,918	
BA	28	12.5	12.5	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-BA28-D-E-0-MoDaYr	542,130	613,918	Step out 10 ft W
BA	31	11.8	10.0	Sidewall Base	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-43-AE-AF-0
BA	31	11.8	11.8	Sidewall Top	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-43-AA-AB-0
BB	19	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BB19-C-D-0-MoDaYr	542,145	614,007	
BB	19	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BB19-A-B-0-MoDaYr	542,145	614,007	
BB	19	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BB19-A-B-0-MoDaYr	542,145	614,017	Step out 10 ft N
BB	22	12.9	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BB22-A-B-0-MoDaYr	542,144	613,978	
BB	22	12.9	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BB22-C-D-0-MoDaYr	542,144	613,978	
BB	25	12.7	11.0	Bottom	Primary	10.5 - 11.0	1.0 - 1.5	WP-PB-BB25-C-D-0-MoDaYr	542,144	613,948	
BB	25	12.7	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BB25-C-D-0-MoDaYr	542,144	613,948	
BB	28	12.4	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BB28-A-B-0-MoDaYr	542,144	613,918	
BB	28	12.4	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BB28-C-D-0-MoDaYr	542,144	613,918	
BB	31	11.8	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-BB31-I-J-0-MoDaYr	542,144	613,888	
BB	31	11.8	11.8	Below Bottom	Primary	10.0 - 10.5	3.5 - 4.0	WP-PBC-BB31-H-I-0-MoDaYr	542,144	613,888	
BB	34	11.2	10.0	Bottom	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by samples CP-44-AA-AB-0, CP-44-AC-AD-0 & CP-44-AE-AF-0
BB	37	11.1	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-BB37-I-J-0-MoDaYr	542,144	613,828	
BB	37	11.1	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BB37-C-D-0-MoDaYr	542,144	613,828	
BB	40	10.8	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BB40-K-L-0-MoDaYr	542,144	613,798	
BB	40	10.8	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BB40-C-D-0-MoDaYr	542,144	613,798	
BB	43	10.0	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BB43-M-N-0-MoDaYr	542,144	613,768	
BB	43	10.0	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BB43-C-D-0-MoDaYr	542,144	613,768	
BB	46	10.5	9.0	Bottom	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by samples CP-64-AA-AB-0, CP-64-AC-AD-0 & CP-64-AE-AF-0
BB	48	11.6	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BB48-K-L-0-MoDaYr	542,144	613,715	
BB	48	11.6	11.6	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-BB48-E-F-0-MoDaYr	542,144	613,715	
BB	48	11.6	11.6	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-BB48-E-F-0-MoDaYr	542,144	613,705	Step out 10 ft S
BE	18	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BE18-C-D-0-MoDaYr	542,174	614,011	
BE	18	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BE18-A-B-0-MoDaYr	542,174	614,011	
BE	18	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BE18-A-B-0-MoDaYr	542,174	614,021	Step out 10 ft N
BE	19	14.0	13.0	Bottom	Primary	12.5 - 13.0	0.0 - 0.5	WP-PB-BE19-A-B-0-MoDaYr	542,174	614,008	
BE	19	14.0	13.0	Below Bottom	Contingency	11.5 - 12.0	1.0 - 1.5	WP-PBC-BE19-C-D-0-MoDaYr	542,174	614,008	
BE	22	12.8	12.0	Bottom	Primary	11.5 - 12.0	0.0 - 0.5	WP-PB-BE22-A-B-0-MoDaYr	542,174	613,978	
BE	22	12.8	12.0	Below Bottom	Contingency	10.5 - 11.0	1.0 - 1.5	WP-PBC-BE22-C-D-0-MoDaYr	542,174	613,978	
BE	25	12.4	10.0	Bottom	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-37-AE-AF-0
BE	28	12.0	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BE28-A-B-0-MoDaYr	542,174	613,918	
BE	28	12.0	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BE28-C-D-0-MoDaYr	542,174	613,918	

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
BE	31	11.4	9.0	Bottom	Primary	8.5 - 9.0	0.0 - 0.5	WP-PB-BE31-A-B-0-MoDaYr	542,174	613,888	
BE	31	11.4	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BE31-C-D-0-MoDaYr	542,174	613,888	
BE	34	11.6	10.0	Bottom	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by samples CP-45-AA-AB-0, CP-45-AC-AD-0 & CP-45-AE-AF-0
BE	37	11.0	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BE37-K-L-0-MoDaYr	542,174	613,828	
BE	37	11.0	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BE37-C-D-0-MoDaYr	542,174	613,828	
BE	40	10.5	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BE40-K-L-0-MoDaYr	542,174	613,798	
BE	40	10.5	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BE40-C-D-0-MoDaYr	542,174	613,798	
BE	43	10.0	9.0	Bottom	--	-- - --	-- - --	No sample at this location.	-	-	Limits defined by sample CP-54-AA-AB-0
BE	46	10.5	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BE46-K-L-0-MoDaYr	542,174	613,738	
BE	46	10.5	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BE46-C-D-0-MoDaYr	542,174	613,738	
BE	48	11.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BE48-K-L-0-MoDaYr	542,174	613,715	
BE	48	11.5	11.5	Sidewall Top	Primary	11.0 - 11.5	2.5 - 3.0	WP-ST-BE48-F-G-0-MoDaYr	542,174	613,715	
BE	48	11.5	11.5	Sidewall Stepout	Contingency	11.0 - 11.5	2.5 - 3.0	WP-STC-BE48-F-G-0-MoDaYr	542,174	613,705	Step out 10 ft S
BH	19	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BH19-C-D-0-MoDaYr	542,204	614,007	
BH	19	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BH19-A-B-0-MoDaYr	542,204	614,007	
BH	19	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BH19-A-B-0-MoDaYr	542,204	614,017	Step out 10 ft N
BH	22	12.8	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BH22-A-B-0-MoDaYr	542,204	613,978	
BH	22	12.8	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BH22-C-D-0-MoDaYr	542,204	613,978	
BH	25	12.6	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BH25-A-B-0-MoDaYr	542,204	613,948	
BH	25	12.6	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BH25-C-D-0-MoDaYr	542,204	613,948	
BH	28	12.0	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BH28-A-B-0-MoDaYr	542,204	613,918	
BH	28	12.0	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BH28-C-D-0-MoDaYr	542,204	613,918	
BH	31	11.5	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BH31-A-B-0-MoDaYr	542,204	613,888	
BH	31	11.5	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BH31-C-D-0-MoDaYr	542,204	613,888	
BH	34	10.9	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BH34-K-L-0-MoDaYr	542,204	613,858	
BH	34	10.9	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BH34-C-D-0-MoDaYr	542,204	613,858	
BH	37	11.0	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BH37-K-L-0-MoDaYr	542,204	613,828	
BH	37	11.0	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BH37-C-D-0-MoDaYr	542,204	613,828	
BH	40	10.5	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BH40-K-L-0-MoDaYr	542,204	613,798	
BH	40	10.5	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BH40-C-D-0-MoDaYr	542,204	613,798	
BH	43	10.0	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BH43-K-L-0-MoDaYr	542,204	613,768	
BH	43	10.0	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BH43-C-D-0-MoDaYr	542,204	613,768	
BH	46	10.5	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BH46-K-L-0-MoDaYr	542,204	613,738	
BH	46	10.5	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BH46-C-D-0-MoDaYr	542,204	613,738	
BH	48	10.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BH48-K-L-0-MoDaYr	542,204	613,715	
BH	48	10.5	10.5	Sidewall Top	Primary	10.0 - 10.5	3.5 - 4.0	WP-ST-BH48-H-I-0-MoDaYr	542,204	613,715	
BH	48	10.5	10.5	Sidewall Stepout	Contingency	10.0 - 10.5	3.5 - 4.0	WP-STC-BH48-H-I-0-MoDaYr	542,204	613,705	Step out 10 ft S
BK	20	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BK20-C-D-0-MoDaYr	542,234	613,998	
BK	20	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BK20-A-B-0-MoDaYr	542,234	613,998	
BK	20	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BK20-A-B-0-MoDaYr	542,234	614,008	Step out 10 ft N
BK	22	14.0	12.0	Bottom	Primary	11.5 - 12.0	0.0 - 0.5	WP-PB-BK22-A-B-0-MoDaYr	542,234	613,978	
BK	22	14.0	12.0	Below Bottom	Contingency	10.5 - 11.0	1.0 - 1.5	WP-PBC-BK22-C-D-0-MoDaYr	542,234	613,978	
BK	25	12.5	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BK25-A-B-0-MoDaYr	542,234	613,948	
BK	25	12.5	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BK25-C-D-0-MoDaYr	542,234	613,948	

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
BK	28	12.0	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BK28-A-B-0-MoDaYr	542,234	613,918	
BK	28	12.0	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BK28-C-D-0-MoDaYr	542,234	613,918	
BK	31	11.3	9.0	Bottom	Primary	8.5 - 9.0	0.0 - 0.5	WP-PB-BK31-A-B-0-MoDaYr	542,234	613,888	
BK	31	11.3	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BK31-C-D-0-MoDaYr	542,234	613,888	
BK	34	10.9	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BK34-M-N-0-MoDaYr	542,234	613,858	
BK	34	10.9	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BK34-C-D-0-MoDaYr	542,234	613,858	
BK	37	11.0	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BK37-K-L-0-MoDaYr	542,234	613,828	
BK	37	11.0	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BK37-C-D-0-MoDaYr	542,234	613,828	
BK	40	10.0	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BK40-K-L-0-MoDaYr	542,234	613,798	
BK	40	10.0	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BK40-C-D-0-MoDaYr	542,234	613,798	
BK	43	9.5	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BK43-K-L-0-MoDaYr	542,234	613,768	
BK	43	9.5	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BK43-C-D-0-MoDaYr	542,234	613,768	
BK	48	9.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BK48-K-L-0-MoDaYr	542,234	613,715	
BK	48	9.5	9.5	Sidewall Top	Primary	9.0 - 9.5	4.5 - 5.0	WP-ST-BK48-J-K-0-MoDaYr	542,234	613,715	
BK	48	9.5	9.5	Sidewall Stepout	Contingency	9.0 - 9.5	4.5 - 5.0	WP-STC-BK48-J-K-0-MoDaYr	542,234	613,705	Step out 10 ft S
BL	46	9.6	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BL46-M-N-0-MoDaYr	542,248	613,738	Bottom sample from grid node BK46 relocated to BL46 to deepest portion of excavation in this area
BL	46	9.6	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BL46-C-D-0-MoDaYr	542,248	613,738	
BN	21	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BN21-C-D-0-MoDaYr	542,264	613,991	
BN	21	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BN21-A-B-0-MoDaYr	542,264	613,991	
BN	21	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BN21-A-B-0-MoDaYr	542,264	614,001	Step out 10 ft N
BN	22	14.0	12.0	Bottom	Primary	11.5 - 12.0	0.0 - 0.5	WP-PB-BN22-A-B-0-MoDaYr	542,264	613,978	
BN	22	14.0	12.0	Below Bottom	Contingency	10.5 - 11.0	1.0 - 1.5	WP-PBC-BN22-C-D-0-MoDaYr	542,264	613,978	
BN	25	14.0	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BN25-A-B-0-MoDaYr	542,264	613,948	
BN	25	14.0	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BN25-C-D-0-MoDaYr	542,264	613,948	
BN	28	12.1	9.0	Bottom	Primary	8.5 - 9.0	0.0 - 0.5	WP-PB-BN28-A-B-0-MoDaYr	542,264	613,918	
BN	28	12.1	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BN28-C-D-0-MoDaYr	542,264	613,918	
BN	31	11.2	7.0	Bottom	Primary	6.5 - 7.0	0.0 - 0.5	WP-PB-BN31-A-B-0-MoDaYr	542,264	613,888	
BN	31	11.2	7.0	Below Bottom	Contingency	5.5 - 6.0	1.0 - 1.5	WP-PBC-BN31-C-D-0-MoDaYr	542,264	613,888	
BN	34	10.9	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BN34-K-L-0-MoDaYr	542,264	613,858	
BN	34	10.9	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BN34-C-D-0-MoDaYr	542,264	613,858	
BN	37	10.2	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BN37-M-N-0-MoDaYr	542,264	613,828	
BN	37	10.2	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BN37-C-D-0-MoDaYr	542,264	613,828	
BN	40	9.5	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BN40-M-N-0-MoDaYr	542,264	613,798	
BN	40	9.5	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BN40-C-D-0-MoDaYr	542,264	613,798	
BN	43	9.7	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BN43-K-L-0-MoDaYr	542,264	613,768	
BN	43	9.7	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BN43-C-D-0-MoDaYr	542,264	613,768	
BN	46	10.3	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BN46-K-L-0-MoDaYr	542,264	613,738	
BN	46	10.3	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BN46-C-D-0-MoDaYr	542,264	613,738	
BN	48	11.6	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BN48-K-L-0-MoDaYr	542,264	613,715	
BN	48	11.6	11.6	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-BN48-E-F-0-MoDaYr	542,264	613,715	
BN	48	11.6	11.6	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-BN48-E-F-0-MoDaYr	542,264	613,705	Step out 10 ft S
BP	31	11.6	7.0	Bottom	Primary	6.5 - 7.0	0.0 - 0.5	WP-PB-BP31-A-B-0-MoDaYr	542,284	613,888	Bottom sample from grid node BQ31 relocated to coordinate BP31 in deepest portion of excavation in this area

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
BP	31	11.6	7.0	Below Bottom	Contingency	5.5 - 6.0	1.0 - 1.5	WP-PBC-BP31-C-D-0-MoDaYr	542,284	613,888	
BP	39	9.5	6.0	Bottom	Primary	5.5 - 6.0	8.0 - 8.5	WP-PB-BP39-Q-R-0-MoDaYr	542,286	613,810	Bottom sample from grid node BQ40 relocated to coordinate BP39 in deepest portion of excavation in this area
BP	39	9.5	6.0	Below Bottom	Contingency	4.5 - 5.0	1.0 - 1.5	WP-PBC-BP39-C-D-0-MoDaYr	542,286	613,810	
BP	43	9.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BP43-K-L-0-MoDaYr	542,290	613,768	
BP	43	9.5	9.5	Sidewall Top	Primary	9.0 - 9.5	4.5 - 5.0	WP-ST-BP43-J-K-0-MoDaYr	542,290	613,768	
BP	43	9.5	9.5	Sidewall Stepout	Contingency	9.0 - 9.5	4.5 - 5.0	WP-STC-BP43-J-K-0-MoDaYr	542,300	613,768	Step out 10 ft E
BP	46	10.4	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BP46-K-L-0-MoDaYr	542,291	613,738	
BP	46	10.4	10.4	Sidewall Top	Primary	10.0 - 10.5	3.5 - 4.0	WP-ST-BP46-H-I-0-MoDaYr	542,291	613,738	
BP	46	10.4	10.4	Sidewall Stepout	Contingency	10.0 - 10.5	3.5 - 4.0	WP-STC-BP46-H-I-0-MoDaYr	542,301	613,738	Step out 10 ft E
BP	48	11.4	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BP48-K-L-0-MoDaYr	542,288	613,719	
BP	48	11.4	11.4	Sidewall Top	Primary	11.0 - 11.5	2.5 - 3.0	WP-ST-BP48-F-G-0-MoDaYr	542,288	613,719	
BP	48	11.4	11.4	Sidewall Stepout	Contingency	11.0 - 11.5	2.5 - 3.0	WP-STC-BP48-F-G-0-MoDaYr	542,295	613,712	Step out 10 ft SE
BQ	21	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BQ21-C-D-0-MoDaYr	542,294	613,983	
BQ	21	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BQ21-A-B-0-MoDaYr	542,294	613,983	
BQ	21	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BQ21-A-B-0-MoDaYr	542,294	613,993	Step out 10 ft N
BQ	22	14.0	13.0	Bottom	Primary	12.5 - 13.0	0.0 - 0.5	WP-PB-BQ22-A-B-0-MoDaYr	542,294	613,978	
BQ	22	14.0	13.0	Below Bottom	Contingency	11.5 - 12.0	1.0 - 1.5	WP-PBC-BQ22-C-D-0-MoDaYr	542,294	613,978	
BQ	25	14.0	11.0	Bottom	Primary	10.5 - 11.0	0.0 - 0.5	WP-PB-BQ25-A-B-0-MoDaYr	542,294	613,948	
BQ	25	14.0	11.0	Below Bottom	Contingency	9.5 - 10.0	1.0 - 1.5	WP-PBC-BQ25-C-D-0-MoDaYr	542,294	613,948	
BQ	28	12.4	9.0	Bottom	Primary	8.5 - 9.0	0.0 - 0.5	WP-PB-BQ28-A-B-0-MoDaYr	542,294	613,918	
BQ	28	12.4	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BQ28-C-D-0-MoDaYr	542,294	613,918	
BQ	34	10.9	9.0	Bottom	Primary	8.5 - 9.0	5.0 - 5.5	WP-PB-BQ34-K-L-0-MoDaYr	542,294	613,858	
BQ	34	10.9	9.0	Below Bottom	Contingency	7.5 - 8.0	1.0 - 1.5	WP-PBC-BQ34-C-D-0-MoDaYr	542,294	613,858	
BQ	37	10.5	8.0	Bottom	Primary	7.5 - 8.0	6.0 - 6.5	WP-PB-BQ37-M-N-0-MoDaYr	542,294	613,828	
BQ	37	10.5	8.0	Below Bottom	Contingency	6.5 - 7.0	1.0 - 1.5	WP-PBC-BQ37-C-D-0-MoDaYr	542,294	613,828	
BQ	40	9.7	6.0	Sidewall Base	Primary	5.5 - 6.0	8.0 - 8.5	WP-SB-BQ40-Q-R-0-MoDaYr	542,294	613,798	
BQ	40	9.7	9.7	Sidewall Top	Primary	9.5 - 10.0	4.0 - 4.5	WP-ST-BQ40-I-J-0-MoDaYr	542,294	613,798	
BQ	40	9.7	9.7	Sidewall Stepout	Contingency	9.5 - 10.0	4.0 - 4.5	WP-STC-BQ40-I-J-0-MoDaYr	542,304	613,798	Step out 10 ft E
BR	22	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BR22-C-D-0-MoDaYr	542,307	613,978	
BR	22	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BR22-A-B-0-MoDaYr	542,307	613,978	
BR	22	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BR22-A-B-0-MoDaYr	542,314	613,985	Step out 10 ft NE
BS	25	14.0	13.0	Sidewall Base	Primary	12.5 - 13.0	1.0 - 1.5	WP-SB-BS25-C-D-0-MoDaYr	542,315	613,948	
BS	25	14.0	14.0	Sidewall Top	Primary	13.5 - 14.0	0.0 - 0.5	WP-ST-BS25-A-B-0-MoDaYr	542,315	613,948	
BS	25	14.0	14.0	Sidewall Stepout	Contingency	13.5 - 14.0	0.0 - 0.5	WP-STC-BS25-A-B-0-MoDaYr	542,325	613,948	Step out 10 ft E
BS	28	12.5	11.0	Sidewall Base	Primary	10.5 - 11.0	3.0 - 3.5	WP-SB-BS28-G-H-0-MoDaYr	542,321	613,918	
BS	28	12.5	12.5	Sidewall Top	Primary	12.0 - 12.5	1.5 - 2.0	WP-ST-BS28-D-E-0-MoDaYr	542,321	613,918	
BS	28	12.5	12.5	Sidewall Stepout	Contingency	12.0 - 12.5	1.5 - 2.0	WP-STC-BS28-D-E-0-MoDaYr	542,331	613,918	Step out 10 ft E
BS	37	10.5	9.0	Sidewall Base	Primary	8.5 - 9.0	5.0 - 5.5	WP-SB-BS37-K-L-0-MoDaYr	542,320	613,828	
BS	37	10.5	10.5	Sidewall Top	Primary	10.0 - 10.5	3.5 - 4.0	WP-ST-BS37-H-I-0-MoDaYr	542,320	613,828	
BS	37	10.5	10.5	Sidewall Stepout	Contingency	10.0 - 10.5	3.5 - 4.0	WP-STC-BS37-H-I-0-MoDaYr	542,327	613,821	Step out 10 ft SE
BT	31	11.8	10.0	Bottom	Primary	9.5 - 10.0	0.0 - 0.5	WP-PB-BT31-A-B-0-MoDaYr	542,328	613,888	
BT	31	11.8	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BT31-C-D-0-MoDaYr	542,328	613,888	
BT	34	10.9	10.0	Bottom	Primary	9.5 - 10.0	4.0 - 4.5	WP-PB-BT34-I-J-0-MoDaYr	542,324	613,858	

Table 7-1. AOC-24 Post-Excavation Sampling Plan
Former Hatco Corporation Remediation Project
Fords, New Jersey

Grid Col.[a]	Grid Row[a]	Existing Bottom Elev.[b]	Target Bottom Elev.	Post-Excavation Sample Type	Analysis	Target Sample Elevation (NAVD88)	Target Sample Depth (ft BB)	Sample ID[c]	Target[d] Sample Easting	Target[d] Sample Northing	Comment
BT	34	10.9	10.0	Below Bottom	Contingency	8.5 - 9.0	1.0 - 1.5	WP-PBC-BT34-C-D-0-MoDaYr	542,324	613,858	
BU	31	12.0	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-BU31-I-J-0-MoDaYr	542,324	613,888	
BU	31	12.0	12.0	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-BU31-E-F-0-MoDaYr	542,324	613,888	
BU	31	12.0	12.0	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-BU31-E-F-0-MoDaYr	542,334	613,888	Step out 10 ft E
BU	34	12.0	10.0	Sidewall Base	Primary	9.5 - 10.0	4.0 - 4.5	WP-SB-BU34-I-J-0-MoDaYr	542,334	613,858	
BU	34	12.0	12.0	Sidewall Top	Primary	11.5 - 12.0	2.0 - 2.5	WP-ST-BU34-E-F-0-MoDaYr	542,334	613,858	
BU	34	12.0	12.0	Sidewall Stepout	Contingency	11.5 - 12.0	2.0 - 2.5	WP-STC-BU34-E-F-0-MoDaYr	542,344	613,858	Step out 10 ft E

Notes:

(a) See Figure 7-1 for post excavation sampling grid and alignment of columns and rows

(b) Existing elevation is the calculated pond bottom elevation based on the bathymetric survey conducted in March 2014

(c) Sample Identification may be adjusted in the field based on actual sample location, depth and sample naming protocol described in work plan Section 7.1.4.

(d) Target sample northing and easting using the New Jersey State Plane Coordinate System (NAD83) and submeter accuracy global positioning system survey equipment.

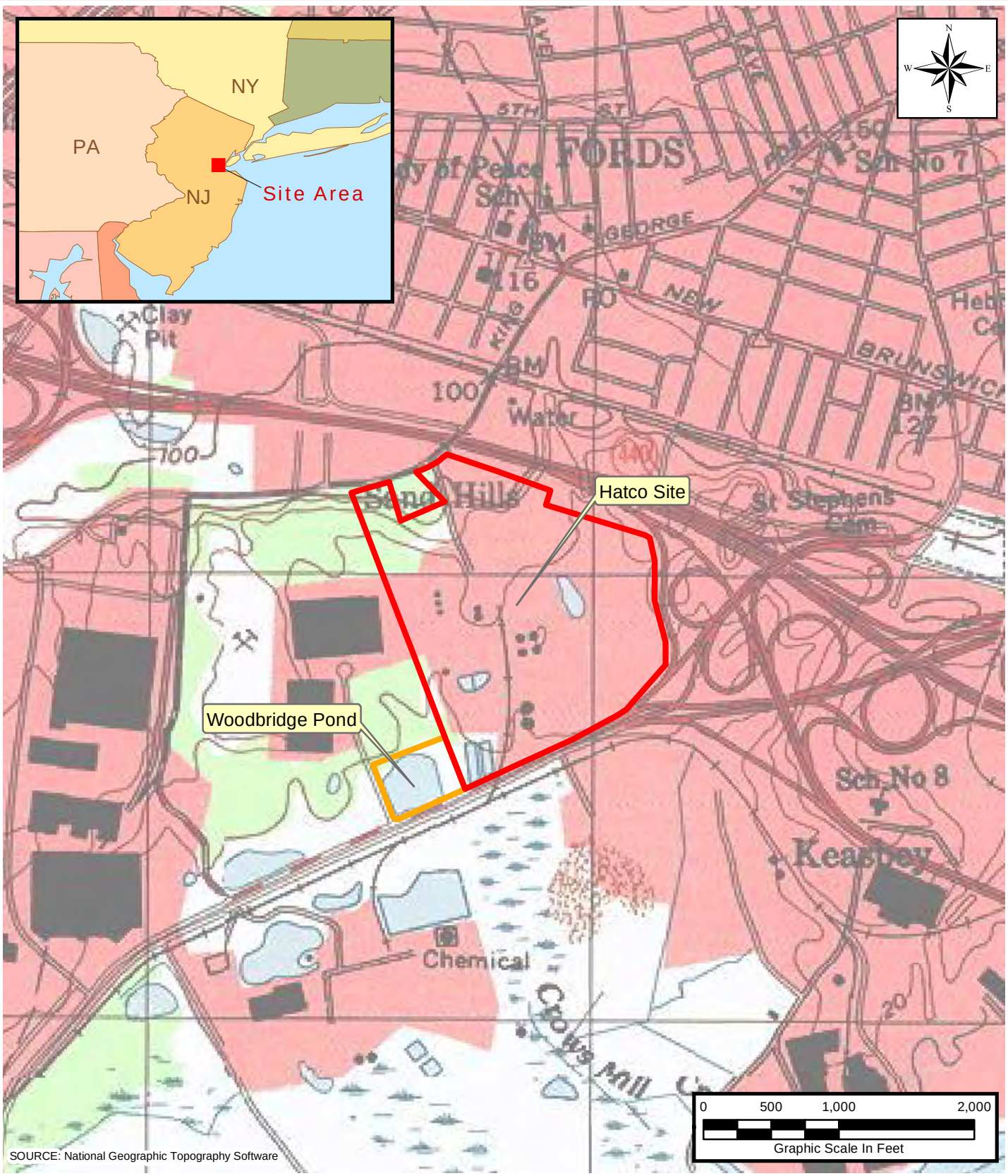
-- No sample required at this location

ft BSW Target depths in feet below surface water elevation estimated at 14.0 feet NAVD88. Final depths may be adjusted in the field based on staff gauge readings

NAVD88 Elevations to the nearest 0.5 feet relative to the North American Vertical Datum 1988 (NAVD88)

L:\13067 Hatco\12.0 Preliminary Documents\2017-06 RAWPA4\Tables\[Table 7-1 Post Ex Sampling.xlsx]Post-Ex Samples

FIGURES



LEGEND:

- Hatco Property
- Woodbridge Pond

TITLE:

Hatco Site Location Map

PROJECT: Woodbrigde Pond Remedial Action Workplan

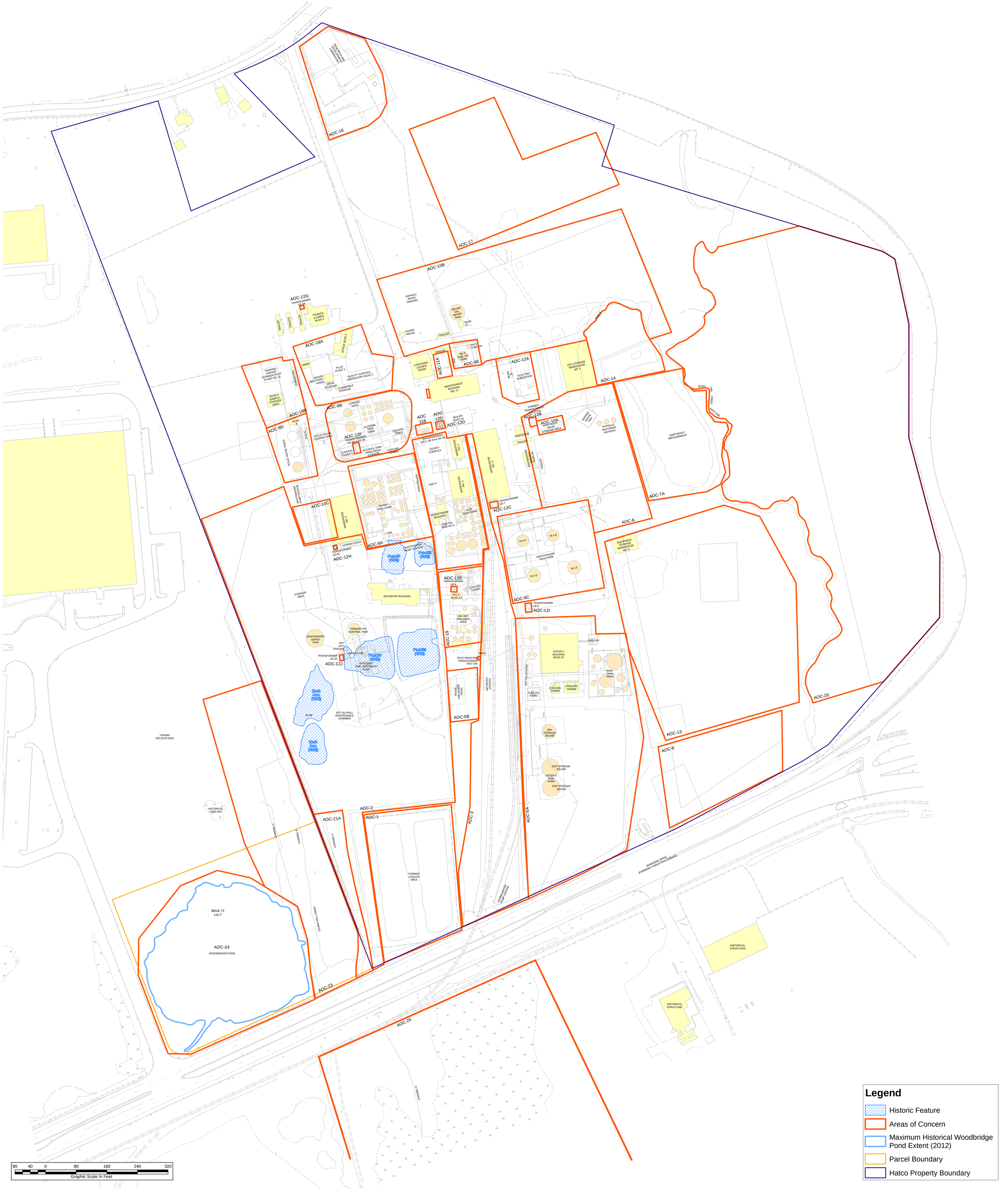
CLIENT NAME: Hatco Corporation

WESTON SOLUTIONS

DATE: June 2017

FIGURE #: 1-1

P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\20279_Site_Loc.mxd



Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: May 2017

PROJECT MANAGER: J. Schindler

CLIENT NAME: Hatco Corporation

DRAWING TITLE: SITE MAP AND AREAS OF CONCERN

DRAWING: 20307_Areas_of_Concern.mxd
PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\

CHECKED BY: A. McGahan

REVISION No. 0

CONTRACT No.
DELIVERY ORDER NO.

PROJECT NAME: Woodbridge Pond Remedial Action Workplan

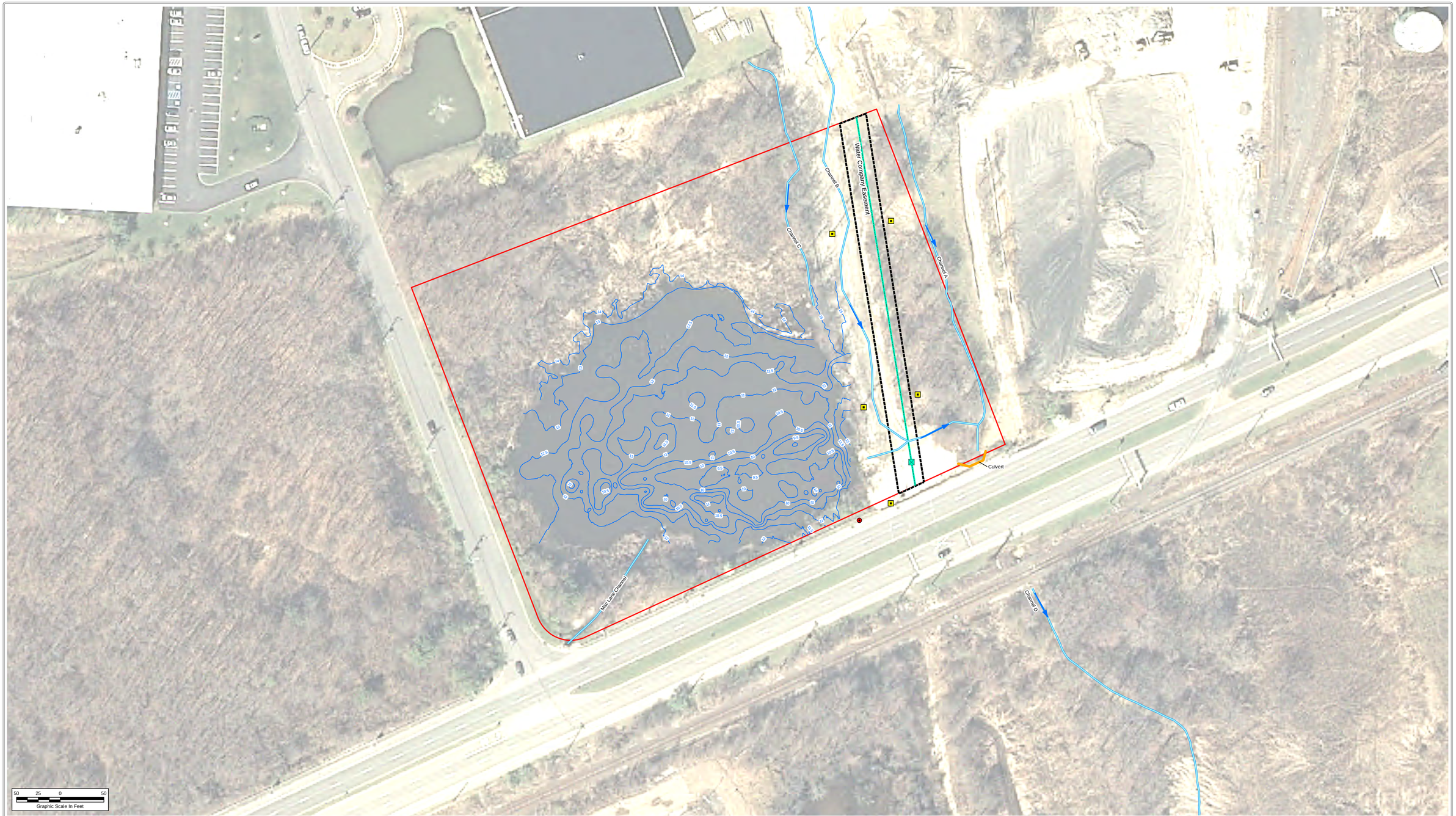
WORK ORDER No. 13067.001.003.9004

DRAWN/MODIFIED BY: J. Heaton
DATE CREATED: 6/2/2017

FIGURE: 1-2

SCALE: 1" =80'

DATE: 6/5/2017



Legend

- Bathymetric Contours (NAVD88, Feet)
- Current Extent of Channels B and C
- Surface water flow direction
- Parcel Boundary
- Easement
- Approximate Hydrant Location
- Approximate Utility Pole Location
- Approximate Water Valve Location
- Approximate Water Main Location
- Culvert

NOTE:
1. Utility locations identified are based upon aerial imagery interpretation.

SOURCES:
1. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). New Jersey 2012 - 2013 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/jviewer.jsp?pg=2012_OrthoImagery.
2. Parcels of Middlesex County. NJ Composite of Parcels Data with joined MOD-IV Attributes 2016. New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 2016/07/20. https://njgin.state.nj.us/NJ_NJGINExplorer/
3. USGS New Jersey CMGP Sandy Lidar. UTM Zone 18N Meters NAD83(2011). NJOIT OGIS. Publication Date: 2014/10/16. https://njgin.state.nj.us/NJ_NJGINExplorer/jviewer.jsp?pg=lidar
4. Woodbridge Pond Bathymetric Elevations. Provided by Aqua Survey, Inc. 2014. NAD88, Feet.

WESTON SOLUTIONS SM

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: June 2017	PROJECT MANAGER: J. Schindler
DRAWING: 20308_Morris_Pond_Bathymetry.mxd PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\	CHECKED BY: B.J. Parekh
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.
WORK ORDER No. 13067.001.003.9004	DRAWN/MODIFIED BY: J. Heaton DATE CREATED: 6/23/2017

CLIENT NAME: Hatco Corporation

PROJECT NAME: Woodbridge Pond Remedial Action Workplan

DRAWING TITLE: Woodbridge Pond Existing Bottom Contours

FIGURE:	SCALE:	DATE:
2-1	1 in = 50 ft	6/5/2017

Legend

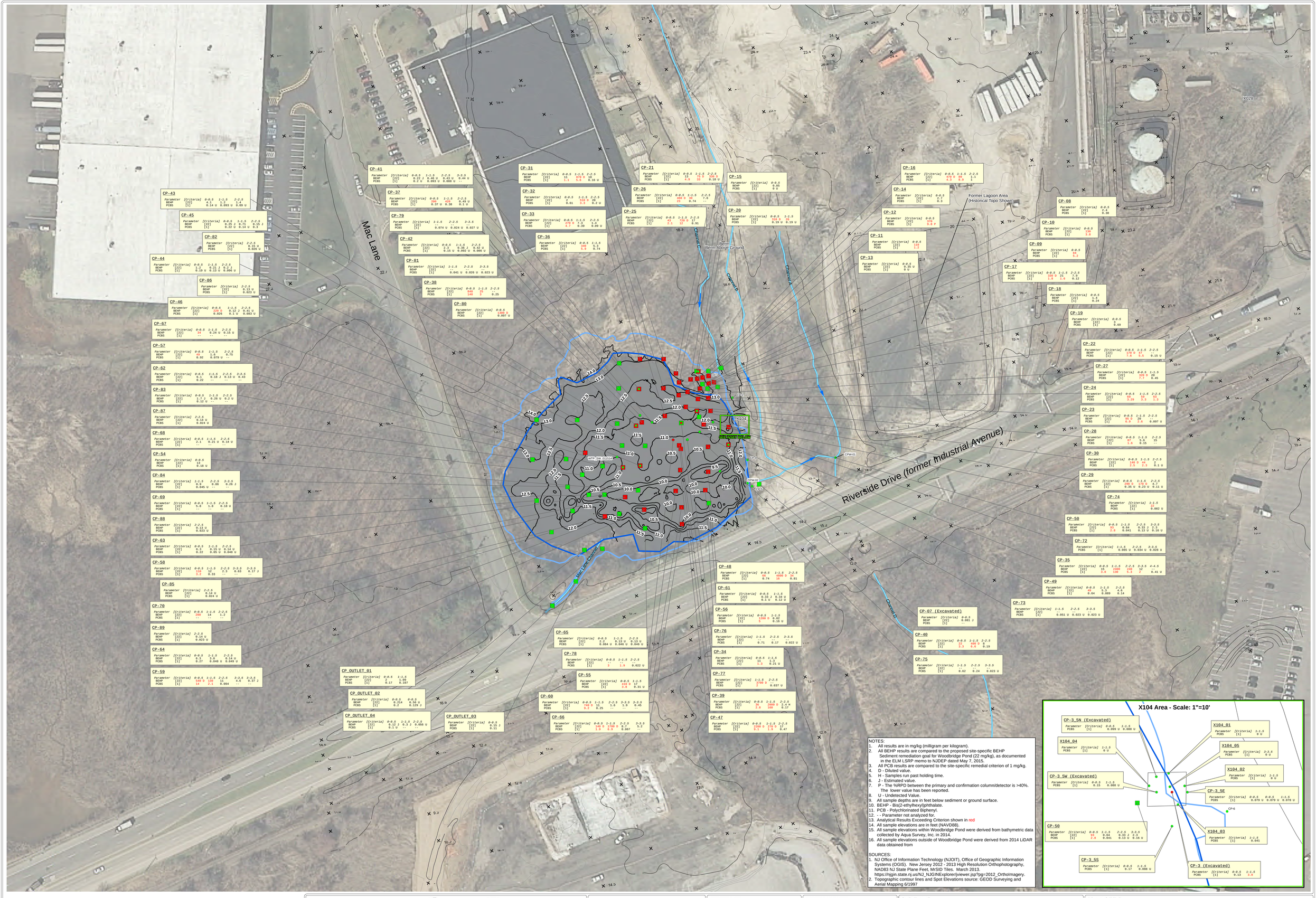
- GPS Flags
- Wetland Soil Boring Location
- Upland Inclusions
- State Open Water/Palustrine Aquatic Bed
- Palustrine Emergent Wetlands, To Be Field Verified
- Forested Wetlands, To Be Field Verified
- Parcel Boundary
- Site Boundary
- Current Extent of Channels

NOTES:
1. This map was created using data from URS and Dan Raviv. The background from Geod Corp., and mapped by photogrammetric methods from aerial photographs dated 4/10/97.
   Projection: NJ State Plane, NAD83.
   Flag points: GPS by Weston (flag points were GPS'd by Weston).
2. The extent of the engineering control and soils/sediment excavation areas are subject to change based on field verification of PCB extent in soil.

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE:	June 2017
DRAWING:	20443_Wet_Delin_RAWP_Layout2.mxd
PATH:	P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\
REVISION No.	2
WORK ORDER No.	13067.001.003.9004
PROJECT MANAGER:	J. Schindler
CHECKED BY:	A. McGahan
CONTRACT No.	
DELIVERY ORDER NO.	
DRAWN/MODIFIED BY:	H. Bravo-Ruiz
DATE CREATED:	6/5/2017
CLIENT NAME:	Hatco Corporation
PROJECT NAME:	Woodbridge Pond Remedial Action Workplan
DRAWING TITLE:	Wetland Delineation Map (2006)
FIGURE:	2-2
SCALE:	1 in = 50 ft
DATE:	6/5/2017



NOTES:
1. All results are in mg/kg (milligram per kilogram).
2. All BEHP results are compared to the proposed site-specific BEHP Sediment remediation goal for Woodbridge Pond (22 mg/kg), as documented in the ELM LSRP memo to NJDEP dated May 7, 2015.
3. All PCB results are compared to the site-specific remedial criterion of 1 mg/kg.
4. D - Diluted value.
5. H - Samples run past holding time.
6. J - Estimated value.
7. P - The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
8. U - Undetected Value.
9. All sample depths are in feet below sediment or ground surface.
10. BEHP - Bis(2-ethylhexyl)phthalate.
11. PCB - Polychlorinated Biphenyl.
12. - - Parameter not analyzed for.
13. Analytical Results Exceeding Criterion shown in red
14. All sample elevations are in feet (NAVD88).
15. All sample elevations within Woodbridge Pond were derived from bathymetric data collected by Aqua Survey, Inc. in 2014.
16. All sample elevations outside of Woodbridge Pond were derived from 2014 LiDAR data obtained from

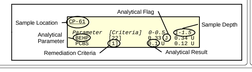
SOURCES:
1. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). New Jersey 2012 - 2013 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/jviewer.jsp?pg=2012_OrthoImagery.
2. Topographic contour lines and Spot Elevations source: GEOD Surveying and Aerial Mapping 6/1997

X104 Area - Scale: 1"=10'

Legend

- PCBs Less Than or Equal to 1 mg/kg in all depth intervals sampled
- PCBs Greater than 1 mg/kg in at least one depth interval
- BEHP Less than or equal to 22 mg/kg in all depth intervals
- BEHP Greater than 22 mg/kg in at least one depth interval
- Maximum Historic Woodbridge Pond Extent (2012)
- Current Woodbridge Pond Extent (2015)
- Current Extent of Channels B and C
- -12.5- Bathymetry with Elevation
- Surface water flow direction

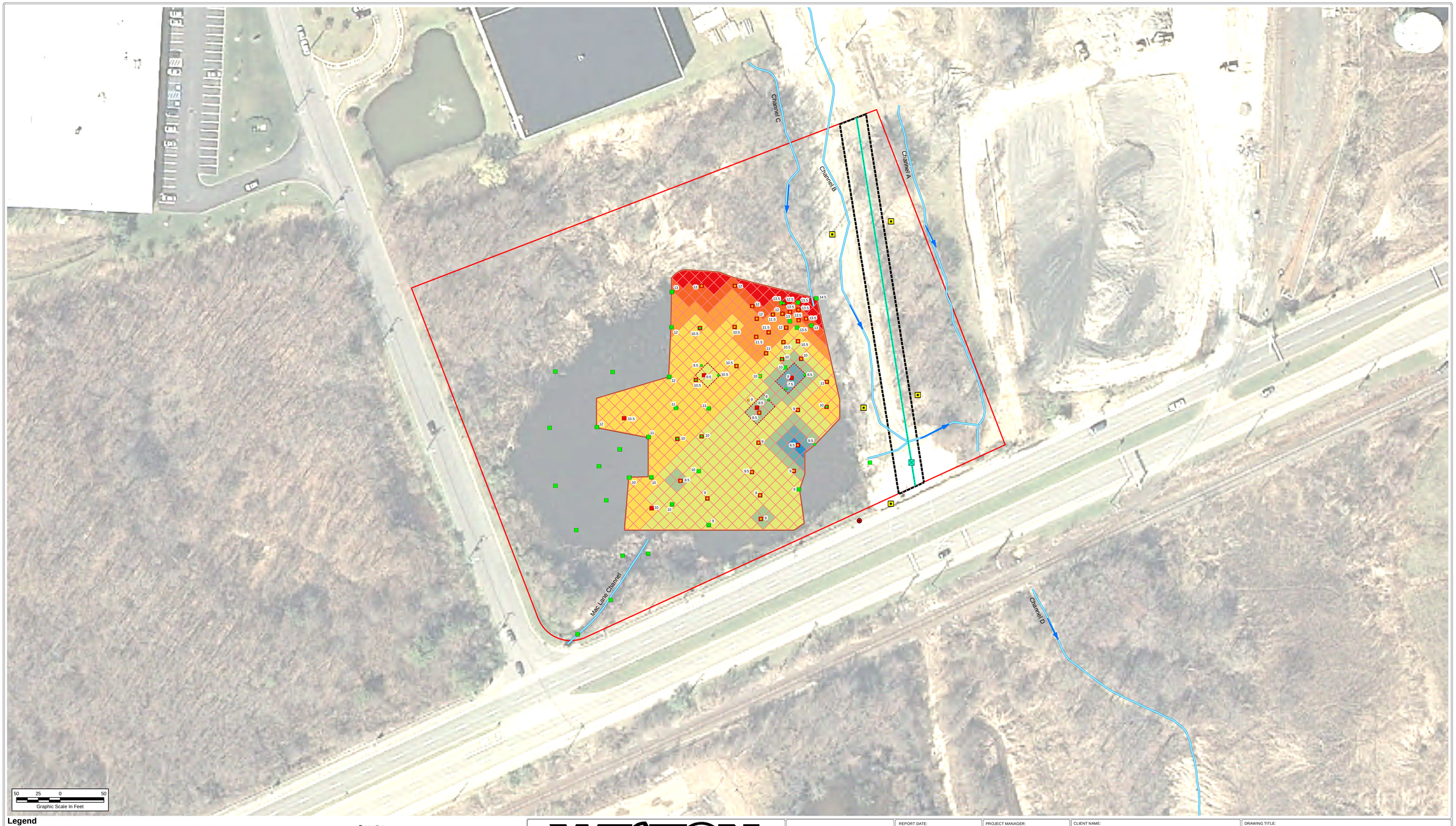
50 25 0 50
Graphic Scale in Feet



Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: June 2017	PROJECT MANAGER: J. Schindler	CLIENT NAME: Hatco Corporation	DRAWING TITLE: Woodbridge Pond Delineation Results
DRAWING: 20311_WTP_Samp_Locs_w_Bathy.mxd PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\	CHECKED BY: A. McGahan		
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.	PROJECT NAME: Woodbridge Pond Remedial Action Workplan	
WORK ORDER No. 13067.001.003.9004	DRAWN/MODIFIED BY: S. Poultney/H. Bravo-Ruiz DATE CREATED: 6/23/2017		FIGURE: 2-3 / SCALE: 1 in = 50 ft / DATE: 6/5/2017



Legend

- PCBs Less Than or Equal to 1 mg/kg in at least one depth interval
- PCBs Greater than 1 and Less Than 50 mg/kg in at least one depth interval
- PCBs Greater than or Equal to 50 mg/kg in at least one depth interval
- BEHP Less than or equal to 22 mg/kg in all depth intervals
- BEHP Greater than 22 mg/kg in at least one depth interval
- Parcel Boundary
- Current Extent of Channels B and C
- Surface Water Flow Direction
- Approximate Water Main Location
- Easement
- Extent of Contamination
- TSCA Subject Area
- Approximate Hydrant Location
- Approximate Utility Pole Location
- Approximate Water Valve Location
- Excavation Grid (10' x 10')

Excavation Bottom Elevations (ft)

6	10		
7	11		
8	12		
9	13		

NOTES:
1. Utility locations identified are based upon aerial imagery interpretation.
2. All sample elevations are in feet (NAVD88).
3. All sample elevations within Woodbridge Pond were derived from bathymetric data collected by Aqua Survey, Inc. in 2014.
4. All sample elevations outside of Woodbridge Pond were derived from 2014 LiDAR data obtained from NJ Geographic Information Network (NJGIN).

SOURCES:
1. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS), New Jersey 2012 - 2013 High Resolution Orthophotography. NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/
2. NJ Department of Treasury, NJ Composite of Parcels Data with joined MOD-IV Attributes 2016. New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 20160720. https://njgin.state.nj.us/NJ_NJGINExplorer/

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

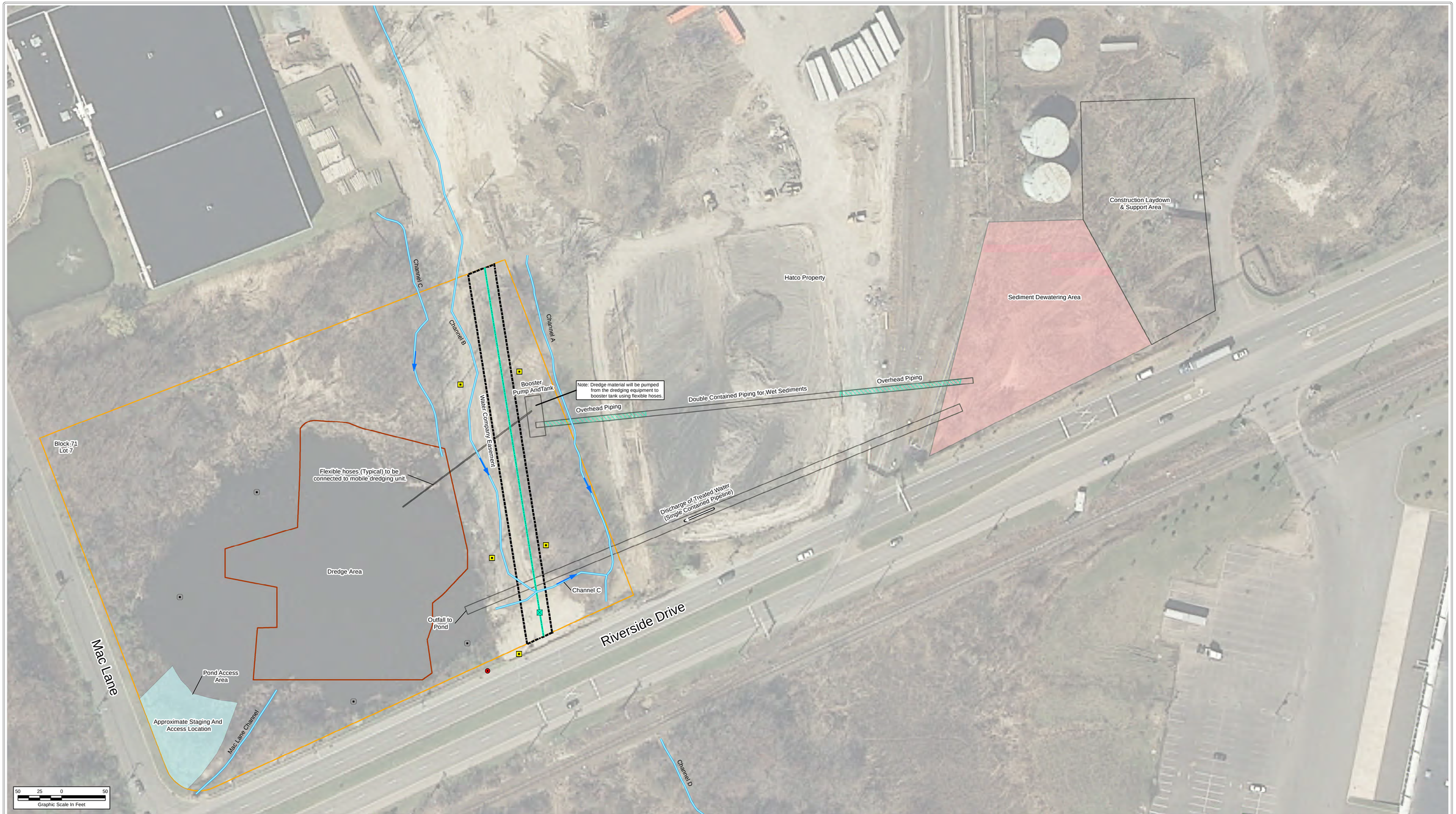
REPORT DATE: June 2017	PROJECT MANAGER: J. Schindler
DRAWING: 20312_Morris_Pond_Proposed_Excavation_Plan_R7_GridShading PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\	CHECKED BY: B.J. Parekh
REVISION No. 7	CONTRACT No. DELIVERY ORDER NO.
WORK ORDER No. 13067.001.003.9004	DRAWN/MODIFIED BY: H. Bravo-Ruiz DATE CREATED: 6/23/2017

CLIENT NAME: Hatco Corporation

PROJECT NAME: Woodbridge Pond Remedial Action Workplan

DRAWING TITLE: Proposed Excavation Plan

FIGURE:	SCALE:	DATE:
2-4	1 in = 50 ft	6/5/2017



Legend

- Approximate Hydrant Location
- Approximate Staff Gauge Location
- Approximate Utility Pole Location
- Approximate Water Valve Location
- Approximate Water Main Location
- Current Extent of Channels B and C
- Surface water flow direction
- Dredge Area
- Easement
- Parcel Boundary

NOTE:
1. Utility locations and are approximate locations based off aerial imagery interpretation.

SOURCES:
1. Easement interpreted from 1986 Tax Map Industrial Highway Corporation figure.
2. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). New Jersey 2012 - 2013 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/jviewer.jsp?pg=2012_Orthoimagery.
3. Parcels of Middlesex County, NJ Composite of Parcels Data with Joined MOD-IV Attributes 2016, New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 20160720. https://njgin.state.nj.us/NJ_NJGINExplorer/

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

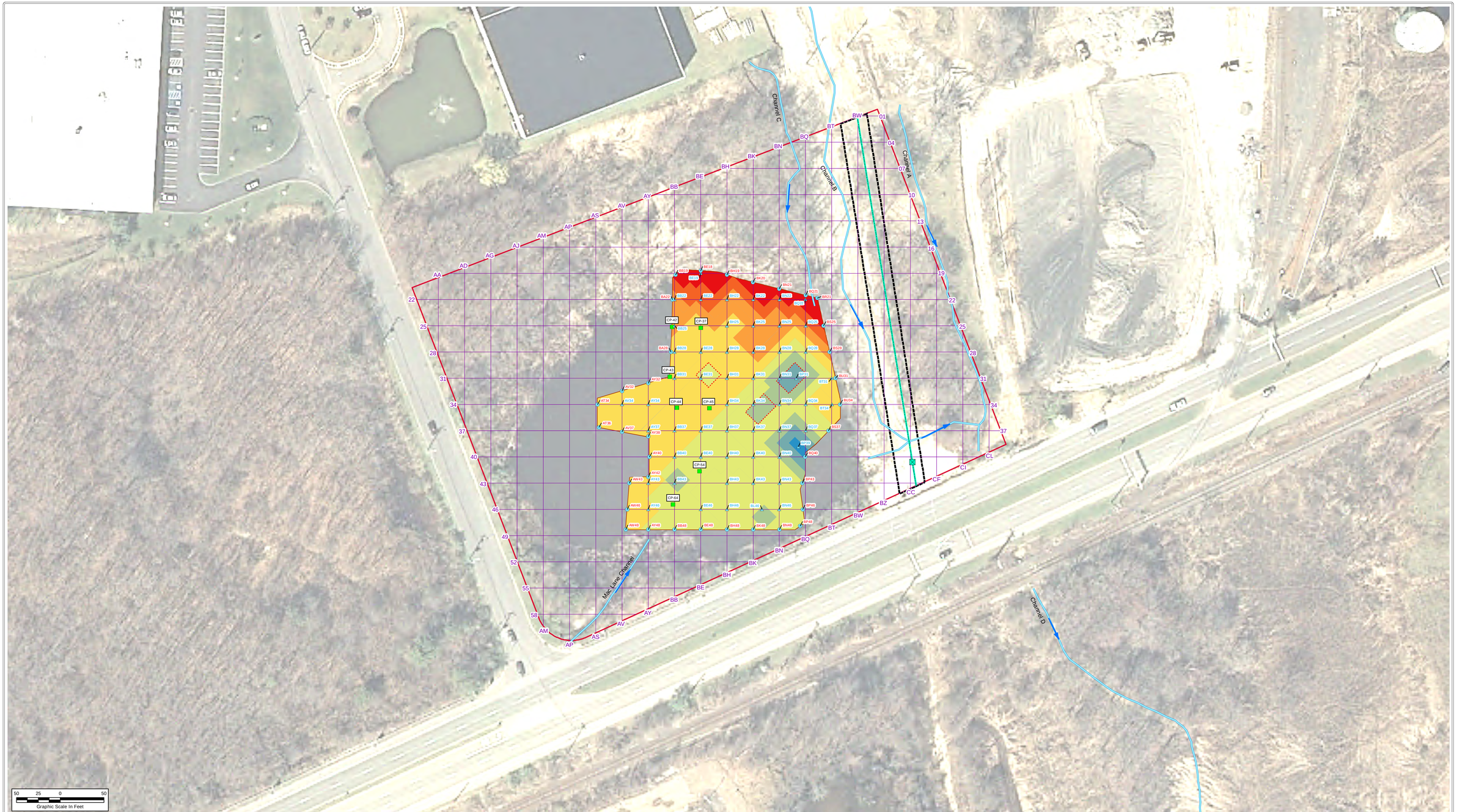
REPORT DATE: June 2017	PROJECT MANAGER: J. Schindler
DRAWING: 20314_Morris_Pond_Construction_Laydown_Area.mxd PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\	CHECKED BY: B.J. Parekh
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.
WORK ORDER No. 13067.001.003.9004	DRAWN/MODIFIED BY: J. Heaton/H. Bravo-Ruiz DATE CREATED: 6/5/2017

CLIENT NAME: Hatco Corporation

PROJECT NAME: Woodbridge Pond Remedial Action Workplan

DRAWING TITLE: Proposed Construction Laydown Area

FIGURE:	SCALE:	DATE:
5-1	1 in = 50 ft	6/27/2017



Legend

- CP-64 — Previous Sample To Be Used For Verification At This Location
- Parcel Boundary
- Extent of Excavation
- Sediment Area with Greater Than 50 mg/kg PCBs
- Easement
- Proposed Sampling Grid (30' x 30')
- Current Extent of Channels B and C
- Surface Water Flow Direction
- Approximate Water Main Location
- Proposed Sidewall Verification Sample Location
- Proposed Bottom Verification Sample Location
- Approximate Water Valve Location

Excavation Bottom Elevations (ft)

6		10	
7		11	
8		12	
9		13	

NOTES:
1. Utility locations identified are based upon aerial imagery interpretation.
2. All sample elevations are in feet (NAVD88).
3. All sample elevations within Woodbridge Pond were derived from bathymetric data collected by Aqua Survey, Inc. in 2014.
4. All sample elevations outside of Woodbridge Pond were derived from 2014 LiDAR data obtained from NJ Geographic Information Network (NJGIN).
5. As approved by US EPA on April 6, 2016 sample locations CP-37, CP-42, CP-43, CP-44, CP-45, CP-54, and CP-64 will be used in lieu of post-excavation samples.

SOURCES:
1. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS), New Jersey 2012 - 2013 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/
2. Parcels of Middlesex County, NJ Composite of Parcels Data with joined MOD-IV Attributes 2016, New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 20160720. https://njgin.state.nj.us/NJ_NJGINExplorer/

WESTON SOLUTIONS SM

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: June 2017	PROJECT MANAGER: J. Schindler
DRAWING: 20575_Morris_Pond_Grid_and_Sampling_Locs.mxd:mxd	CHECKED BY: B.J. Parekh
PATH: P:\Hatco\GIS\MXD\2017_01_Morris_Pond_RAWP\	
REVISION No. 3	CONTRACT No. DELIVERY ORDER NO.
WORK ORDER No. 13067.001.003.9004	DRAWN/MODIFIED BY: H. Bravo-Ruiz DATE CREATED: 7/19/2017

CLIENT NAME: Hatco Corporation

PROJECT NAME: Woodbridge Pond Remedial Action Work Plan

DRAWING TITLE: Woodbridge Pond Proposed Post-Excavation Sampling Plan

FIGURE:	SCALE:	DATE:
7-1	1 in = 50 ft	7/19/2017

Appendix A USEPA
Risk Based Disposal Approval Letter (2005)

F.1P2.5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 30 2005

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Peter A. Ceribelli
Senior Vice President
Weston Solutions, Inc.
1400 Weston Way, Box 2693
West Chester, Pa. 19380

Dear Mr. Ceribelli:

This letter is the United States Environmental Protection Agency's (EPA) response to, and approval of, Weston Solutions, Inc. (hereinafter, "Weston") January 26, 2004 request, and the August 13, 2004 request modification, for a risk-based PCB disposal approval for portions of the Hatco site located in Fords, Middlesex County, New Jersey, in accordance with the federal regulations for polychlorinated biphenyls (PCBs) promulgated pursuant to the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2601 et seq., and set forth in Part 761 of Title 40 of the Code of Federal Regulations (40 C.F.R. § 761). Prior to Weston's application, a PCB risk-based disposal application for the Hatco site was submitted jointly by Hatco Corporation and W.R. Grace & Co. by letter dated June 19, 2002.

The complete application that EPA considered, and that is the subject of this approval includes the following by this reference:

1) June 19, 2002 letter from Hatco and W.R. Grace & Co. transmitting a document titled "PCB Remediation Proposal And Human Health Risk Assessment For PCB Impacted Soils," dated August 31, 2001. A set of documents transmitted separately to EPA and listed in an Attachment to the June 19, 2002 letter. The listing includes a "Human Health Risk Assessment" (HHRA), a "Draft Remedial Action Work Plan" (RAWP) Volumes 1-5, and "Laboratory Reports," Volumes 6-21.

2) Weston's January 26, 2004 letter containing a modified application, which incorporates the prior application materials, and superseded the June 19, 2002 application submitted jointly by Hatco and W.R. Grace & Co.

3) Weston's August 13, 2004 letter setting forth a modified approach for remediation of the on-site lagoons, superceding the remedial approach set forth for the lagoons in the prior application materials.

It should be noted that the New Jersey Department of Environmental Protection ("NJDEP") reviewed the document, dated August 31, 2001, titled "PCB Remediation Proposal and Human Health Risk Assessment For PCB Impacted Soils," and in comments dated June 2, 2003, stated that the soil remediation proposal and risk assessment were unacceptable. NJDEP therefore required that a revised draft RAWP that addressed NJDEP's comments be prepared. Since that time, as indicated in Weston's January 26, 2004 modified risk-based PCB disposal approval application, as further modified in Weston's August 13, 2004 letter, the remedy has been significantly enhanced to address PCB contamination at the site. The modifications include:

1) extending the area to be covered with the engineered cap to all locations of the site with PCB concentrations greater than 2 mg/Kg (ppm) dry weight;

2) allowing only soils contaminated with PCBs at concentrations less than 500 mg/Kg (ppm) dry weight to remain on-site, with the exception of the two on-site lagoons addressed in item 3 below, and these materials shall be covered with the engineered cap as described in item 1 above; excavated materials containing greater than 500 mg/Kg (ppm) dry weight PCBs that are removed from the site shall be properly disposed of in accordance with federal PCB regulations contained in 40 C.F.R. § 761;

3) excavation and off-site disposal of chemical waste sludges, sediments, and any other material overlying the clay layer in the two on-site lagoons; sampling to verify that no material remaining in the lagoons exceeds a concentration of 500 mg/Kg (ppm) dry weight PCBs; verify the integrity of the clay layer and, if necessitated by any observed loss of integrity, restore the integrity of the clay layer; collapse of the berm separating the lagoons; backfill of the lagoons with soil from other areas of the Hatco site determined to contain less than 500 mg/Kg (ppm) PCBs (including areas identified in the draft RAWP that lie beyond the Hatco Corporation property boundary); capping those backfilled materials excavated from other areas of the Hatco site determined to contain greater than 50 mg/kg (ppm) PCB mg/kg with a geotextile of not less than 50 mil thickness and a permeability of not less than 10E-7 cm/sec; and cover of the lagoon backfill with clean fill to a thickness of not less than two feet. Materials excavated from the lagoons shall be managed, including separation of liquid and non liquid fractions, and disposed of off-site in accordance with PCB disposal regulations contained in 40 C.F.R §761.61(b); and

4) identification and placement of all locations at the site with PCBs in excess of 0.49 mg/Kg (ppm) dry weight under a deed restriction;

5) verification of the perpetual protectiveness of the remedy by long term monitoring.

Based on the information provided in the application, including the five modifications outlined above, EPA has determined that implementation of the remedy and disposal actions

proposed in the application will not pose an unreasonable risk of injury to health or the environment.

Region 2 staff prepared a draft approval and published a public notice on January 10, 2005 in the Newark Star Ledger and the Home News-Tribune establishing a 30 day public comment period on the draft approval. The full application and extensive background materials were made available for public review at the EPA Edison office and at the Woodbridge Library - Fords, New Jersey, branch. No public comments were received during the 30 day public comment period.

EPA Region 2 reviewed the application to determine whether the proposed remedy would be protective of public health and the environment, is technically feasible and appropriate, is consistent and supportive of the NJDEP's plans for remediation of the site, and that safeguards are in place to ensure that long-term operation, maintenance, and monitoring commitments associated with the remedy would be undertaken.

By this letter, EPA hereby issues approval for the risk-based disposal of soils, sediments, pond "muck," and phthalic anhydride wastes contaminated with PCBs, and PCB contaminated materials located at the Hatco site, subject to the conditions specified in this letter. This approval is being issued under the authority granted to EPA by the Toxic Substances Control Act (TSCA) as codified in 40 C.F.R. § 761.61(c), (OMB Control Number 2070-0159). This approval also constitutes an order under the authority of Section 6 of TSCA, 15 U.S.C. § 2605.

1. Effective Date and Review Date

This approval shall become effective on the date that the Regional Administrator (RA) of EPA Region 2 receives written notification from Weston of its acceptance and intention to comply with the conditions of this letter. The person providing such written notification must be an officer of Weston. This offer may be withdrawn if EPA Region 2 does not receive written notification from Weston of its acceptance of, and intention to comply with, the conditions and terms of this approval within 45 days of the date of the bankruptcy court's order approving the Remediation Agreement by and among Weston, Hatco and Grace, and the Revitalization Settlement Agreement by and among the NJDEP, Weston, ACE Financial Solutions, Inc., Hatco, and Grace and its affiliates, or other such date as may be agreed to by the parties.

The EPA will review this approval no later than 5 years from its effective date. At that time, if the EPA finds that the continued implementation of the remedy granted by this approval presents an unreasonable risk to health or the environment, the EPA may modify, suspend, or revoke this approval. Alternatively, the EPA may request further information to make such a determination.

2. Description of Extent of PCB Contamination

The Hatco site, a portion of which is contaminated with PCBs above 50 mg/Kg (ppm) dry weight and is therefore the subject of this approval, is located at 1020 King Georges Post Road, Fords, Middlesex County, New Jersey. This site encompasses 80 acres and is bordered by King Georges Post Road to the North, Industrial Avenue to the south, Route 440 and Interstate I-287 to the east, and a tributary to Crows Mill Creek to the west. Approximately 15 acres of the site are developed. Chemical manufacturing, processing, storage, and waste residuals management facilities, research and quality control laboratories, and management and sales offices are located at the site. The Hatco site discussed herein also includes an area to the west of the Hatco property boundary and an area south of Industrial Avenue (known as Channel D) which are described in the draft RAWP.

PCBs were detected in 852 of the approximately 1,300 soil samples analyzed for these compounds. Detected concentrations range from 0.0033 mg/Kg (ppm) to 12,000 mg/Kg (ppm). Soils containing more than 100 mg/Kg (ppm) PCBs are generally limited to portions of the "Main Production Area", the "Muck" area, the four former unlined ponds, and two former chemical waste lagoons. A few samples collected outside of the Main Production Area were contaminated with PCBs at concentrations greater than 100 mg/Kg (ppm). Surface soil contamination between 2 mg/Kg (ppm) and 100 mg/Kg (ppm) exists over a wider portion of the developed area of the site, beyond the Main Production Area.

The Muck area is located near the western border of the site, where semi-solid materials from the ponds were periodically removed and placed on surface soils. PCB contamination in the Muck area was detected up to12,000 mg/Kg (ppm), with the highest levels of contamination present in the interval between two (2) and six (6) feet below ground surface (bgs).

The four on-site ponds received wastewater from manufacturing operations during the 1960's. In 1970, the ponds were excavated, filled and covered with soil, and a portion covered with asphalt. The maximum concentration of PCBs reported in the pond area is 8,600 mg/Kg (ppm), detected in a sample collected between 7 – 7.5 ft bgs.

In the mid 1960's, two (2) clay lined lagoons were constructed to receive chemical manufacturing wastewater effluent, recover floating organic chemical waste, and moderate flow of wastewater to the Middlesex County Utilities Authority. The two lagoons were removed from service during "Project 50" in 1991. PCB contamination exceeding 500 mg/Kg (ppm) has been detected in the lagoons.

Floating free product organic chemicals (also known as light non-aqueous phase liquid or LNAPL) are present on groundwater at two main areas: one extending from the Main Production Area southward to just north of the former lagoons; and a second within the former Muck area. The LNAPL plume at the north end of the Main Production Area is approximately 0.13 feet

thick; at the south end of the Main Production Area, LNAPL is about 1.72 feet thick; and at the former Muck Area, LNAPL is about 0.06 feet thick. The maximum PCBs concentration reported in the LNAPL was 90,000 mg/Kg (ppm). The total combined length of the LNAPL contaminated areas is approximately 1,250 feet.

The reported concentrations of PCBs in shallow groundwater monitoring wells ranged up to 24,000 ug/L (ppb), detected in the monitoring well designated MW-15S during the October 1991 sampling.

3. Remedial Action, Cap Remedy, and Long Term Monitoring

This approval applies to all portions of the Hatco site contaminated with PCBs at concentrations greater than or equal to 50 mg/Kg (ppm) (hereinafter, the "TSCA Remediation Area"), unless otherwise addressed. The TSCA Remediation Area and those areas where PCBs are present at concentrations greater than the NJDEP Cleanup Standard of 0.49 mg/Kg (ppm) (hereinafter, the "Total Remediation Area) will be subject to an Administrative Consent Order (ACO), executed between Weston and NJDEP. Those portions of the site with PCB contamination at concentrations less than 50 mg/Kg (ppm) dry weight are also subject to, and will be addressed in accordance with, NJDEP requirements.

Weston shall comply with the draft Remedial Action Workplan (RAWP), as modified to incorporate the terms of the January 2004 application, Weston's August 13 letter, and this approval, unless EPA Region 2 provides written approval of any additional modification. Notification of intent to modify the remedy must be received by EPA at least 60 calendar days prior to the proposed implementation of the modification. The provisions of this approval supercede any inconsistent provisions which may be contained in the RAWP as modified by the January 2004 application and Weston's August 13, 2004 letter.

Weston shall excavate and dispose of off-site, in accordance with 40 C.F.R. Part 761, all PCB containing material at concentrations greater than 500 mg/Kg (ppm) dry weight. Weston shall also excavate and dispose of off-site, material from the former lagoons, as described previously in this approval letter, and conduct long term monitoring to verify the perpetual effectiveness of the remedy. All remedial and monitoring work shall be performed in accordance with an engineering and monitoring plan, approved in advance, in writing, by EPA Region 2. No later than thirty (30) days after excavating and disposing of the soil, Weston shall submit to EPA Region 2 a certification, signed by a professional engineer licensed by the State of New Jersey, verifying that such work has been completed in accordance with the draft RAWP and this approval. Weston shall also maintain in perpetuity, the following records:

1) "as-built" engineering drawings which provide latitude and longitude determined using differential global positioning or an equivalent method which conforms to the EPA

locational data standard available online under the "Data Standards" link at **http://www.epa.gov/edr/**;

2) construction related documents including engineering specifications for all purchased, manufactured, or otherwise fabricated elements associated with the remedy;

3) purchase receipts and/or certifications associated with all components of the remedy;

4) lists or logsheets which record the identity and affiliation of all personnel associated with off-site management, design, or procurement, and on-site implementation of the remedy;

5) all records and information related to characterization, analysis (verified by analysis using an appropriately sensitive and selective EPA SW-846 method or validated equivalent), shipping, and disposal of materials associated with this portion of the remedy and the long term monitoring.

In addition, Weston shall consolidate the remainder of the contaminated material under an engineered cap to contain PCBs at concentrations of 2 mg/Kg (ppm) or greater (surface and subsurface soils). The capped area will include the Muck Area and the former ponds.

Crows Mill Creek (referred to as Channel D in the draft RAWP) sediments that contain PCBs above 1 mg/Kg (ppm) dry weight shall be removed and placed under the main on-site cap. Off-site contaminated soils from the areas west of the site boundary containing PCBs at concentrations over 2 mg/Kg (ppm) will be capped in place.

Areas of the site where the remedial action is for placement of a soil cap per Section 4.4.1 of the March 29, 2001 draft Remedial Action Workplan (RAWP) as modified by the January 2004 application and Weston's August 13 letter, shall be capped with a minimum of 18 to 24 inches of clean soil [i.e. containing <1 mg/Kg (ppm) PCB per 40 C.F.R. § 761.125(a)(2)(ii)], constructed, at minimum, to meet the specifications provided in 40 C.F.R. § 761.61(a)(7). Within thirty (30) days of completing the cap remedy, Weston shall submit to EPA Region 2 the following:

1) a certification, signed by a professional engineer licensed by the State of New Jersey, verifying that such work has been completed in accordance with the Draft RAWP and this approval, and

2) certification of the source, and PCB concentration - determined by analysis using an appropriately sensitive and selective EPA SW-846 method or validated equivalent - of "clean soil" utilized in the remediation.

4. Recording of Approval and Deed Notice

Within sixty (60) days of construction of the cap remedy, as described in the draft RAWP as modified by the January 2004 application and Weston's August 13 letter, and above, Weston shall prepare a Deed Notice and request the then owner(s) of the site **and off-site areas of the site** to record the Deed Notices, in accordance with 40 C.F.R. § 761.61(a)(8) and New Jersey law, with the County Clerk's Office, Middlesex County, New Jersey. The Deed Notice shall be consistent with NJDEP requirements and shall include: a description of the extent of contamination found at the site; a description of the removal action and cap remedy; the restrictions on use included in Section 7 of this approval; and a copy of this approval, appended as an attachment. Within 10 days of receipt of a stamped, filed Deed Notice, Weston shall submit a copy of same to EPA Region 2.

5. Inspection and Maintenance Obligations; Annual Report to EPA.

Weston shall provide EPA Region 2 with an update of the status of the remediation project every three (3) months following the effective date of this approval until the capping, removal, and disposal operations are complete. After the caps are completed, Weston shall visually inspect the caps at least annually, and maintain the caps as needed. Weston shall also provide for a means of communicating with the owner of the site regarding any and all activities at the site which did or may result in any disruption, damage, removal, or other loss of integrity of the cap, and Weston shall inspect the cap within five (5) working days of such notification. If necessary, the cap shall be repaired or replaced within 14 working days of the verification of damage or other loss of integrity. Within 14 working days of completion of repairs, Weston shall submit to EPA the following information:

1) notification that the cap has been breached or otherwise suffered damage or loss of integrity;

2) certification, signed by a professional engineer licensed by the State of New Jersey, that the cap has been repaired or replaced to a condition not less than that constructed as required by this approval.

The caps shall be maintained to prevent access to the contaminated material (e.g. soil and debris) under the caps and to prevent such material from being released. Weston shall also, by July 1 of each year, submit to EPA Region 2 an annual written summary report covering the previous reporting period (January through December of the previous year). The Annual Report shall provide the following information:

1) reports of visual inspections and maintenance needed to maintain the as-built integrity of the cap;

2) maintenance reports;

3) information regarding any problems maintaining any element of the remedy.

6. Sale of the Property

If Weston is advised that the then owner of the site intends to sell or lease any portion of the TSCA Remediation Area, it shall notify EPA Region 2, in writing, of the sale or lease of any portion of the TSCA Remediation Area no later than 30 days after receiving such advice prior to such action. This notification shall include the name, address and telephone number of the new owner(s). As permitted by the access agreements. Weston shall visually inspect the caps within 30 days prior to sale or lease of any such property, and shall, thereafter, provide a written report of the results of inspection, and any as yet unreported inspections and /or maintenance on the caps, to EPA Region 2 and to the buyer or lessee no later than 10 days prior to such sale or lease. In the event that the owner of the Hatco site sells or leases any portion of the TSCA Remediation Area, Weston shall continue to be bound by all the terms and conditions of this approval, unless the following occurs:

1) the new owner or any lessee requests, in writing, that EPA Region 2 reissue this approval to the new owner or lessee, transferring all responsibility to comply with the terms and conditions of this approval to the new owner or lessee;

2) EPA Region 2 reissues this approval to the new owner or any lessee, transferring all responsibility to comply with the terms and conditions of this approval to the new owner or lessee; and

3) the new owner or any lessee provides written notification to EPA Region 2 of their acceptance of and intention to comply with the terms and conditions of the reissued approval. The reissued approval may be withdrawn if EPA Region 2 does not receive written notification from the new owner or lessee of their acceptance of, and intention to comply with, the conditions and terms of the reissued approval within 45 days of the date of the reissued approval. Under such circumstances, this approval, issued to Weston, will remain in effect. In such case, Weston shall provide EPA, in writing, documentation that Weston will be afforded access to the site, as necessary, to fulfill any and all obligations included in this approval.

7. Modifications and Changes in Use

Any modification(s) in the plan, specifications, or information submitted in Weston's application or draft RAWP as modified by the January 2004 application and Weston's August 13 letter, based on which this approval has been issued, must receive prior written approval from EPA Region 2. Minor modifications to this approval may be authorized, in writing, by the Chief

of the Pesticides and Toxic Substances Branch. Weston shall inform EPA Region 2 of any change, in writing, at least 60 days prior to such change. No action may be taken to implement any such modification unless EPA Region 2 has approved of the modification, in writing. EPA Region 2 may request additional information in order to determine whether or not it approves of the modification. If such modification involves a change in the use of the TSCA Remediation Area, EPA may revoke, suspend and/or modify this approval if it finds that Weston's remedy may pose an unreasonable risk to health or to the environment due to the change in use, or if EPA Region 2 does not receive information it deems appropriate from Weston or Hatco to make a determination regarding such potential risk. Weston shall prepare and request that the owner of the site record any amendment to the Deed Notice and/or this approval, resulting from any modification(s), within 60 days of such changes(s).

8. EPA Entry and Inspection

Hatco has provided EPA assurance that EPA representatives may enter the site at reasonable times for the purposes listed below. Weston shall, also, allow any authorized EPA representatives to enter the site at reasonable times for the purposes listed below:

1) to inspect the TSCA Remediation Area of the Hatco site to assess compliance with this approval and/or the federal PCB regulations;

2) to inspect any records related to this approval and/or federal PCB regulations;

3) to take samples for the purpose of assessing compliance with this approval and/or the federal PCB regulations.

Any refusal to allow any of the above actions may result in the suspension and/or revocation of this approval.

All notifications, documents, and requests to be submitted to EPA Region 2 as specified in this approval shall, unless EPA Region 2 later indicates otherwise in writing, be sent to:

Chief
Pesticides and Toxic Substances Branch
United States Environmental Protection Agency, Region 2
2890 Woodbridge Avenue (MS-105)
Edison, New Jersey 08837-3679
Telephone (732) 321-6765 Facsimile (732) 321-6788

This approval, issued pursuant to 40 C.F.R. § 761.61(c), is subject to Weston having provided EPA Region 2 with complete and forthright disclosure of all material facts. Any misrepresentation or omission by Weston of any material fact in Weston's application or the

draft RAWP may result in EPA's revocation, suspension and/or modification of this approval, in addition to any other legal or equitable relief or remedy EPA may choose to pursue under applicable law.

Weston's acceptance of this approval constitutes Weston's agreement to comply with: 1) all conditions and terms of this approval, and 2) all applicable provisions of federal, state and local law. This approval specifies the requirements applicable under TSCA and does not make any determination regarding requirements which may be applicable under other federal, state or local law. TSCA disposal requirements do not supercede other, more stringent, applicable federal, state or local laws, including any applicable requirements under the Solid Waste Disposal Act and its amendments, including the Resource Conservation and Recovery Act. Any failure by Weston to comply with any condition or term of this approval shall constitute a violation of said approval, which has been issued pursuant to 40 C.F.R. § 761.61(c); such violation is made unlawful by Section 15(1)(C) of TSCA, 15 U.S.C. § 2614(C). Any such violation(s) may result in an action by EPA for any legal or equitable relief or remedy available under applicable law. Any such violation might also result in EPA revoking, suspending and/or modifying this approval.

Based on the information included in Weston's application, EPA Region 2 finds that the PCB disposal authorized under this approval will not present an unreasonable risk to health or the environment. Permitted levels of PCB concentration for material remaining on-site under this approval are based on a site specific risk determination pursuant to TSCA, and are not applicable to any other site. Notwithstanding, this approval may be revoked, suspended and/or modified after Weston's acceptance thereof at any time if EPA Region 2 determines that implementation of this approval may present an unreasonable risk of injury to health or the environment. Nothing in this letter is intended or is to be construed to prejudice any right or remedy concerning the operation of Hatco's facility otherwise available to EPA under Section 6 of TSCA, 15 U.S.C. § 2605 and/or 40 C.F.R. § 761.

If you have any questions about the approval, or the request for additional information regarding the chemical waste lagoons, please contact Dennis McChesney of the Pesticides and Toxic Substances Branch at 732-906-6817.

Sincerely,

for

Kathleen C. Callahan
Acting Regional Administrator

cc: Commissioner Bradley M. Campbell
New Jersey Department of Environmental Protection

Stephen E. Maybury, Bureau Chief, BEECRA
New Jersey Department of Environmental Protection

Profile Tracking # _____

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com, or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name:

Section 1 – Generator & Customer Information

Generator EPA ID # NJR986660751
NAICS/SIC Code 562910
Generator Weston Solutions, Inc.
Facility Address Riverside Drive
City Woodbridge State NJ Zip 08863
24-hour Emergency Response Number
800-255-3924 ChemTel
Mailing Address 205 Campus Drive
City Edison State NJ Zip 08837
Generator Contact Jason Schindler
Title Principal Project Manager
Phone 732-417-5800 Fax 732-417-5801
E-mail Jason.Schindler@westonsolutions.com

Internal Use Only: EQ Division _____
EQ Customer No. _____
Invoicing Company Sevenson Environmental Services
Address 2749 Lockport Road
City Niagara Falls State NY Zip 14305
Country United States of America
Invoicing Contact Mike Marrone
Phone (716)308-1990 Fax N/A
Technical Contact Konor Krueger
Phone (716)284-0431 Fax (716)285-4201
Cell Phone (716)946-3821
E-mail KKrueger@sevenson.com

Section 2 – Shipping & Packaging Information

2.1) Shipping Volume & Frequency:
a) Volume of Waste to be Shipped: 325 CY
b) Frequency: ☒ One time ☐ Month ☐ Year ☐ Other: _____

2.2) DOT Information
a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ☒ Yes ☐ No
b) If "Yes", indicate the proper shipping name per 49CFR 172.101 Hazardous Materials Table:
Environmentally Hazardous Substances, Solid, N.O.S., (polychlorinated biphenyls), 9, PG III

Section 3 – Special Properties

3.1) Color Varies

3.2) Odor ☒ None ☐ Ammonia ☐ Amines ☐ Mercaptans ☐ Sulfur ☐ Organic Acid ☐ Amines/Ammonia ☐ Other: _____

3.3) Consistency at 70^{0}F: ☒ Solid ☐ Dust/Powder ☐ Debris ☐ Sludge ☐ Liquid ☐ Gas/Aerosol ☐ Varies

3.4) What is the pH? ☐ ≤2 ☐ 2.1-4.9 ☒ 5 – 10 ☐ 10.1 – 12.4 ☐ ≥12.5 ☐ N/A

3.5) What is the flash point? ☐ <90^{0}F ☐ 90-139^{0}F ☐ 140-199^{0}F ☐ >200^{0}F ☐ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

☒ **None**	❑ Free Liquids	❑ Metal Fines	❑ Water Reactive	❑ Biohazard
❑ Shock Sensitive	❑ Oily Residue	❑ Dioxins	❑ Furans	❑ Aluminum
❑ Asbestos – non-friable	❑ Asbestos – friable	❑ Other Radioactive	❑ Air Reactive	❑ Isocyanates
❑ Biodegradable Sorbents	❑ Pyrophoric	❑ Reactive Sulfide	❑ Reactive Cyanide	❑ Explosives
❑ Temperature Controlled Organic Peroxide		❑ NORM	❑ TENORM	

Section 4 – Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges of the material, either estimated or known.

Sand and clay	92 to 98 %		Polychlorinated biphenyls	_____ to <1 %	
Portland cement	2 to 8 %		bis(2-ethylhexyl)phthalate	_____ to <1 %	

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

Waste generated by dredging of pond sediments contaminated by historical process liquid releases in the 1960s. Process liquids contained polychlorinated biphenyls and phthalates, predominantly bis(2-ethylhexyl)phthalate. Releases occurred in the 1960s. In-situ PCB concentrations up to 180 mg/kg. Portland cement will be added for moisture control.

4.3) Are there any known previous handling or treatment issues involving this waste? ❑ Yes* ☒ No

*If yes, describe: _____

Section 5 – Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ❑ Yes, please provide exemption: _____ ☒ No

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ❑ Yes: _____ ☒ No

a) For F006–F009, F012, does this come from a generator that conducts a cyanide plating process? ❑ Yes ☒ No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ❑ Yes: _____ ☒ No

5.4) Do any State Specific Hazardous Waste Codes apply? ❑ Yes: _____ ☒ No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: _____ EPA Form Code: _____

5.6) Waste Code Determination Is Based On: ❑ Generator Knowledge ❑ Analysis ❑ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ❑ Yes ❑ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ❑ WW ❑ NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40CFR 268.49? ❑ Yes ❑ No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ❑ Yes ❑ No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

_____

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ❑ Yes* ❑ No

*If Yes, please list: _____

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 – Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ☐ Yes ☒ No _____

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG)? ☐ UNIV ☐ RG ☒ N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ☐ Yes ☒ No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ☐ Yes ☒ No

b) If yes, what is the source of the halogen content?

- ☐ This is a metalworking oil/fluid containing chlorinated paraffins.
- ☐ This is used oil contaminated with chlorofluorocarbons from refrigeration units.
- ☐ This oil contains halogenated solvents. List specific solvents: _____
- ☐ Other, describe: _____

Section 7 – TSCA Information

7.1) What is the concentration of PCBs in the waste? ☐ None ☐ 0-49 ppm ☒ 50-499 ppm ☐ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ☐ Yes ☐ No ☒ Unknown

If you answered "none" or "0-49 ppm"' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ☐ Yes* ☒ No

*If yes, what was the concentration of PCBs prior to processing? ☐ 0-499 ppm ☐ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ☒ Yes ☐ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ☐ Yes ☒ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ☒ N/A ☐ Yes ☐ No

Section 8 – Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ☐ Yes ☒ No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ☐ Yes ☒ No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ☐ Yes* ☒ No

*If Yes this document serves as notification that this waste contains chemicals _____ , _____ required to be managed in accordance with Part ☐ 61 ☐ 62 ☐ 63 Subpart _____ of NESHAP/MACT standards.

8.4) Does this waste stream contain Benzene? ☐ Yes ☒ No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)?

☐ Yes, please provide the SIC/NAICS code: _____ ☐ No

If you answered "no" to questions 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site?

☐ Yes, please specify: _____ ☐ No

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ☐ Yes ☐ No

8.8) Does the waste contain >10% water? ☐ Yes ☐ No

8.9) What is the TAB quantity for your facility? _____ Mg/Year

8.10) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw.

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 – Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature _____ Printed Name Jason Schindler

Company Weston Solutions, Inc. Title Principal Project Manager Date 4/11/2019

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ – The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

The following definitions shall apply for purposes of this Agreement:

"**Acceptable Waste"** shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"**Delivered Wastes"** shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statues, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

EZ Profile™

Requested Facility: _____ ❑ Unsure Profile Number: _____

❑ Multiple Generator Locations (Attach Locations) ❑ Request Certificate of Disposal ❑ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: Weston Solutions, Inc.
2. Site Address: 205 Campus Drive
   (City, State, ZIP) Edison, NJ 08837
3. County: MIddlesex
4. Contact Name: Jason Schindler
5. Email: jason.schindler@westonsolutions.com
6. Phone: 732-417-5804 7. Fax: 732-417-5801
8. Generator EPA ID: NJR986660751 ❑ N/A
9. State ID: _____ ☑ N/A

B. BILLING INFORMATION ❑ SAME AS GENERATOR

1. Billing Name: Sevenson Environmental Services
2. Billing Address: _____
   (City, State, ZIP) _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____ 6. Fax: _____
7. WM Hauled? ❑ Yes ❑ No
8. P.O. Number: _____
9. Payment Method: ❑ Credit Account ❑ Cash ❑ Credit Card

C. MATERIAL INFORMATION

1. Common Name: PCB-contaminated sediments
   Describe Process Generating Material: ❑ See Attached

   Dredging of sediments containing less than 50 mg/kg PCBs

2. Material Composition and Contaminants: ❑ See Attached

1. Sand and clay	92 to 98 %
2. Portland Cement	2 to 8 %
3. Polychlorinated Biphenyl (PCB)	<1%
4. bis(2-ethylhexyl)phthalate	<1%
Total comp. must be equal to or greater than 100%	≥100%

3. State Waste Codes: _____ ☑ N/A
4. Color: Brown
5. Physical State at 70˚F: ☑ Solid ❑ Liquid ❑ Other: _____
6. Free Liquid Range Percentage: _____ to _____ ❑ N/A
7. pH: 5.3 to 6.5 ❑ N/A
8. Strong Odor: ❑ Yes ☑ No Describe: _____
9. Flash Point: ☑ <140˚F ❑ 140˚–199˚F ❑ ≥200˚ ❑ N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ❑ Yes* ☑ No
   Code: _____
2. State Hazardous Waste? ❑ Yes ☑ No
   Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? ❑ Yes* ☑ No
4. Contains Underlying Hazardous Constituents? ❑ Yes* ☑ No
5. From an industry regulated under Benzene NESHAP? ❑ Yes* ☑ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ❑ Yes* ☑ No
7. CERCLA or State-mandated clean-up? ☑ Yes* ❑ No
8. NRC or State-regulated radioactive or NORM waste? ❑ Yes* ☑ No

***If Yes, see Addendum (page 2) for additional questions and space.**

9. Contains PCBs? → If Yes, answer a, b and c. ☑ Yes ❑ No
   a. Regulated by 40 CFR 761? ☑ Yes ❑ No
   b. Remediation under 40 CFR 761.61 (a)? ☑ Yes ❑ No
   c. Were PCB imported into the US? ❑ Yes ☑ No
10. Regulated and/or Untreated Medical/Infectious Waste? ❑ Yes ☑ No
11. Contains Asbestos? ❑ Yes ☑ No
    → If Yes: ❑ Non-Friable ❑ Non-Friable – Regulated ❑ Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ☑ Yes
   Please identify applicable samples and/or lab reports:
2. Other information attached (such as MSDS)? ❑ Yes

F. SHIPPING AND DOT INFORMATION

1. ☑ One-Time Event ❑ Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 5000
   ☑ Tons ❑ Yards ❑ Drums ❑ Gallons ❑ Other: _____
3. Container Type and Size: 16 cy triaxle dump truck
4. USDOT Proper Shipping Name: ❑ N/A
   ~~Waste Environmentally hazardous substance, solid, n.o.s.~~

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): Jason Schindler Date: 4/5/19

Title: Principal Project Manager

Company: Weston Solutions, Inc.

Certification Signature

EZ Profile™ Addendum

Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

5.	
6.	
7.	
8.	
9.	
Total composition must be equal to or greater than 100%	≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers:

   b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? ❑ Yes ❑ No
   c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. ❑ Yes ❑ No
   d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? ❑ Yes ❑ No
   → If Yes, please check **one** of the following:
   ❑ Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
   ❑ Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.
2. State Hazardous Waste → Please list all state waste codes: _____
3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:
   ❑ Delisted Hazardous Waste ❑ Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
   ❑ Treated Hazardous Waste Debris ❑ Treated Characteristic Hazardous Waste → If checked, complete question 4.
4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.
   a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. ❑ Yes ❑ No
   b. Does this material contain benzene? ❑ Yes ❑ No
      1. If yes, what is the flow weighted average concentration? _____ ppmw
   c. What is your facility's current total annual benzene quantity in Megagrams? ❑ <1 Mg ❑ 1–9.99 Mg ❑ ≥10 Mg
   d. Is this waste soil from a remediation? ❑ Yes ❑ No
      1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
   e. Does the waste contain >10% water/moisture? ❑ Yes ❑ No
   f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? ❑ Yes ❑ No
   g. Is material exempt from controls in accordance with 40 CFR 61.342? ❑ Yes ❑ No
   → If yes, specify exemption: _____
   h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? ❑ Yes ❑ No
6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? ❑ Yes ❑ No
7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.
8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____

Revised June 30, 2015

Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

Material Composition and Contaminants (Continued from page 2): If more space is needed, please attach additional pages.

10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
Total composition must be equal to or greater than 100%	≥100%

D. REGULATORY INFORMATION

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers (Continued from page 2):

2. Form Code:

3. Source Code:

Additional Profile Information

Profile Number: _____

F. SHIPPING AND DOT INFORMATION

4. USDOT Proper Shipping & Technical Name (Continued from page 1):

2.	❑ N/A
3.	❑ N/A
4.	❑ N/A
5.	❑ N/A
6.	❑ N/A
7.	❑ N/A
8.	❑ N/A
9.	❑ N/A
10.	❑ N/A
11.	❑ N/A
12.	❑ N/A
13.	❑ N/A
14.	❑ N/A
15.	❑ N/A
16.	❑ N/A
17.	❑ N/A
18.	❑ N/A
19.	❑ N/A
20.	❑ N/A
21.	❑ N/A
22.	❑ N/A
23.	❑ N/A
24.	❑ N/A
25.	❑ N/A
26.	❑ N/A
27.	❑ N/A
28.	❑ N/A
29.	❑ N/A
30.	❑ N/A
31.	❑ N/A
32.	❑ N/A
33.	❑ N/A
34.	❑ N/A
35.	❑ N/A
36.	❑ N/A
37.	❑ N/A
38.	❑ N/A
39.	❑ N/A
40.	❑ N/A
41.	❑ N/A
42.	❑ N/A
43.	❑ N/A
44.	❑ N/A
45.	❑ N/A
46.	❑ N/A
47.	❑ N/A
48.	❑ N/A
49.	❑ N/A
50.	❑ N/A
51.	❑ N/A

Revised June 30, 2015

Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

4. State Waste Codes (Continued from page 1):

2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.

Revised June 30, 2015

F.1P2.5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 30 2005

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Peter A. Ceribelli
Senior Vice President
Weston Solutions, Inc.
1400 Weston Way, Box 2693
West Chester, Pa. 19380

Dear Mr. Ceribelli:

This letter is the United States Environmental Protection Agency's (EPA) response to, and approval of, Weston Solutions, Inc. (hereinafter, "Weston") January 26, 2004 request, and the August 13, 2004 request modification, for a risk-based PCB disposal approval for portions of the Hatco site located in Fords, Middlesex County, New Jersey, in accordance with the federal regulations for polychlorinated biphenyls (PCBs) promulgated pursuant to the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2601 et seq., and set forth in Part 761 of Title 40 of the Code of Federal Regulations (40 C.F.R. § 761). Prior to Weston's application, a PCB risk-based disposal application for the Hatco site was submitted jointly by Hatco Corporation and W.R. Grace & Co. by letter dated June 19, 2002.

The complete application that EPA considered, and that is the subject of this approval includes the following by this reference:

1) June 19, 2002 letter from Hatco and W.R. Grace & Co. transmitting a document titled "PCB Remediation Proposal And Human Health Risk Assessment For PCB Impacted Soils," dated August 31, 2001. A set of documents transmitted separately to EPA and listed in an Attachment to the June 19, 2002 letter. The listing includes a "Human Health Risk Assessment" (HHRA), a "Draft Remedial Action Work Plan" (RAWP) Volumes 1-5, and "Laboratory Reports," Volumes 6-21.

2) Weston's January 26, 2004 letter containing a modified application, which incorporates the prior application materials, and superseded the June 19, 2002 application submitted jointly by Hatco and W.R. Grace & Co.

3) Weston's August 13, 2004 letter setting forth a modified approach for remediation of the on-site lagoons, superceding the remedial approach set forth for the lagoons in the prior application materials.

It should be noted that the New Jersey Department of Environmental Protection ("NJDEP") reviewed the document, dated August 31, 2001, titled "PCB Remediation Proposal and Human Health Risk Assessment For PCB Impacted Soils," and in comments dated June 2, 2003, stated that the soil remediation proposal and risk assessment were unacceptable. NJDEP therefore required that a revised draft RAWP that addressed NJDEP's comments be prepared. Since that time, as indicated in Weston's January 26, 2004 modified risk-based PCB disposal approval application, as further modified in Weston's August 13, 2004 letter, the remedy has been significantly enhanced to address PCB contamination at the site. The modifications include:

1) extending the area to be covered with the engineered cap to all locations of the site with PCB concentrations greater than 2 mg/Kg (ppm) dry weight;

2) allowing only soils contaminated with PCBs at concentrations less than 500 mg/Kg (ppm) dry weight to remain on-site, with the exception of the two on-site lagoons addressed in item 3 below, and these materials shall be covered with the engineered cap as described in item 1 above; excavated materials containing greater than 500 mg/Kg (ppm) dry weight PCBs that are removed from the site shall be properly disposed of in accordance with federal PCB regulations contained in 40 C.F.R. § 761;

3) excavation and off-site disposal of chemical waste sludges, sediments, and any other material overlying the clay layer in the two on-site lagoons; sampling to verify that no material remaining in the lagoons exceeds a concentration of 500 mg/Kg (ppm) dry weight PCBs; verify the integrity of the clay layer and, if necessitated by any observed loss of integrity, restore the integrity of the clay layer; collapse of the berm separating the lagoons; backfill of the lagoons with soil from other areas of the Hatco site determined to contain less than 500 mg/Kg (ppm) PCBs (including areas identified in the draft RAWP that lie beyond the Hatco Corporation property boundary); capping those backfilled materials excavated from other areas of the Hatco site determined to contain greater than 50 mg/kg (ppm) PCB mg/kg with a geotextile of not less than 50 mil thickness and a permeability of not less than 10E-7 cm/sec; and cover of the lagoon backfill with clean fill to a thickness of not less than two feet. Materials excavated from the lagoons shall be managed, including separation of liquid and non liquid fractions, and disposed of off-site in accordance with PCB disposal regulations contained in 40 C.F.R §761.61(b); and

4) identification and placement of all locations at the site with PCBs in excess of 0.49 mg/Kg (ppm) dry weight under a deed restriction;

5) verification of the perpetual protectiveness of the remedy by long term monitoring.

Based on the information provided in the application, including the five modifications outlined above, EPA has determined that implementation of the remedy and disposal actions

proposed in the application will not pose an unreasonable risk of injury to health or the environment.

Region 2 staff prepared a draft approval and published a public notice on January 10, 2005 in the Newark Star Ledger and the Home News-Tribune establishing a 30 day public comment period on the draft approval. The full application and extensive background materials were made available for public review at the EPA Edison office and at the Woodbridge Library - Fords, New Jersey, branch. No public comments were received during the 30 day public comment period.

EPA Region 2 reviewed the application to determine whether the proposed remedy would be protective of public health and the environment, is technically feasible and appropriate, is consistent and supportive of the NJDEP's plans for remediation of the site, and that safeguards are in place to ensure that long-term operation, maintenance, and monitoring commitments associated with the remedy would be undertaken.

By this letter, EPA hereby issues approval for the risk-based disposal of soils, sediments, pond "muck," and phthalic anhydride wastes contaminated with PCBs, and PCB contaminated materials located at the Hatco site, subject to the conditions specified in this letter. This approval is being issued under the authority granted to EPA by the Toxic Substances Control Act (TSCA) as codified in 40 C.F.R. § 761.61(c), (OMB Control Number 2070-0159). This approval also constitutes an order under the authority of Section 6 of TSCA, 15 U.S.C. § 2605.

1. Effective Date and Review Date

This approval shall become effective on the date that the Regional Administrator (RA) of EPA Region 2 receives written notification from Weston of its acceptance and intention to comply with the conditions of this letter. The person providing such written notification must be an officer of Weston. This offer may be withdrawn if EPA Region 2 does not receive written notification from Weston of its acceptance of, and intention to comply with, the conditions and terms of this approval within 45 days of the date of the bankruptcy court's order approving the Remediation Agreement by and among Weston, Hatco and Grace, and the Revitalization Settlement Agreement by and among the NJDEP, Weston, ACE Financial Solutions, Inc., Hatco, and Grace and its affiliates, or other such date as may be agreed to by the parties.

The EPA will review this approval no later than 5 years from its effective date. At that time, if the EPA finds that the continued implementation of the remedy granted by this approval presents an unreasonable risk to health or the environment, the EPA may modify, suspend, or revoke this approval. Alternatively, the EPA may request further information to make such a determination.

2. Description of Extent of PCB Contamination

The Hatco site, a portion of which is contaminated with PCBs above 50 mg/Kg (ppm) dry weight and is therefore the subject of this approval, is located at 1020 King Georges Post Road, Fords, Middlesex County, New Jersey. This site encompasses 80 acres and is bordered by King Georges Post Road to the North, Industrial Avenue to the south, Route 440 and Interstate I-287 to the east, and a tributary to Crows Mill Creek to the west. Approximately 15 acres of the site are developed. Chemical manufacturing, processing, storage, and waste residuals management facilities, research and quality control laboratories, and management and sales offices are located at the site. The Hatco site discussed herein also includes an area to the west of the Hatco property boundary and an area south of Industrial Avenue (known as Channel D) which are described in the draft RAWP.

PCBs were detected in 852 of the approximately 1,300 soil samples analyzed for these compounds. Detected concentrations range from 0.0033 mg/Kg (ppm) to 12,000 mg/Kg (ppm). Soils containing more than 100 mg/Kg (ppm) PCBs are generally limited to portions of the "Main Production Area", the "Muck" area, the four former unlined ponds, and two former chemical waste lagoons. A few samples collected outside of the Main Production Area were contaminated with PCBs at concentrations greater than 100 mg/Kg (ppm). Surface soil contamination between 2 mg/Kg (ppm) and 100 mg/Kg (ppm) exists over a wider portion of the developed area of the site, beyond the Main Production Area.

The Muck area is located near the western border of the site, where semi-solid materials from the ponds were periodically removed and placed on surface soils. PCB contamination in the Muck area was detected up to12,000 mg/Kg (ppm), with the highest levels of contamination present in the interval between two (2) and six (6) feet below ground surface (bgs).

The four on-site ponds received wastewater from manufacturing operations during the 1960's. In 1970, the ponds were excavated, filled and covered with soil, and a portion covered with asphalt. The maximum concentration of PCBs reported in the pond area is 8,600 mg/Kg (ppm), detected in a sample collected between 7 – 7.5 ft bgs.

In the mid 1960's, two (2) clay lined lagoons were constructed to receive chemical manufacturing wastewater effluent, recover floating organic chemical waste, and moderate flow of wastewater to the Middlesex County Utilities Authority. The two lagoons were removed from service during "Project 50" in 1991. PCB contamination exceeding 500 mg/Kg (ppm) has been detected in the lagoons.

Floating free product organic chemicals (also known as light non-aqueous phase liquid or LNAPL) are present on groundwater at two main areas: one extending from the Main Production Area southward to just north of the former lagoons; and a second within the former Muck area. The LNAPL plume at the north end of the Main Production Area is approximately 0.13 feet

thick; at the south end of the Main Production Area, LNAPL is about 1.72 feet thick; and at the former Muck Area, LNAPL is about 0.06 feet thick. The maximum PCBs concentration reported in the LNAPL was 90,000 mg/Kg (ppm). The total combined length of the LNAPL contaminated areas is approximately 1,250 feet.

The reported concentrations of PCBs in shallow groundwater monitoring wells ranged up to 24,000 ug/L (ppb), detected in the monitoring well designated MW-15S during the October 1991 sampling.

3. Remedial Action, Cap Remedy, and Long Term Monitoring

This approval applies to all portions of the Hatco site contaminated with PCBs at concentrations greater than or equal to 50 mg/Kg (ppm) (hereinafter, the "TSCA Remediation Area"), unless otherwise addressed. The TSCA Remediation Area and those areas where PCBs are present at concentrations greater than the NJDEP Cleanup Standard of 0.49 mg/Kg (ppm) (hereinafter, the "Total Remediation Area) will be subject to an Administrative Consent Order (ACO), executed between Weston and NJDEP. Those portions of the site with PCB contamination at concentrations less than 50 mg/Kg (ppm) dry weight are also subject to, and will be addressed in accordance with, NJDEP requirements.

Weston shall comply with the draft Remedial Action Workplan (RAWP), as modified to incorporate the terms of the January 2004 application, Weston's August 13 letter, and this approval, unless EPA Region 2 provides written approval of any additional modification. Notification of intent to modify the remedy must be received by EPA at least 60 calendar days prior to the proposed implementation of the modification. The provisions of this approval supercede any inconsistent provisions which may be contained in the RAWP as modified by the January 2004 application and Weston's August 13, 2004 letter.

Weston shall excavate and dispose of off-site, in accordance with 40 C.F.R. Part 761, all PCB containing material at concentrations greater than 500 mg/Kg (ppm) dry weight. Weston shall also excavate and dispose of off-site, material from the former lagoons, as described previously in this approval letter, and conduct long term monitoring to verify the perpetual effectiveness of the remedy. All remedial and monitoring work shall be performed in accordance with an engineering and monitoring plan, approved in advance, in writing, by EPA Region 2. No later than thirty (30) days after excavating and disposing of the soil, Weston shall submit to EPA Region 2 a certification, signed by a professional engineer licensed by the State of New Jersey, verifying that such work has been completed in accordance with the draft RAWP and this approval. Weston shall also maintain in perpetuity, the following records:

1) "as-built" engineering drawings which provide latitude and longitude determined using differential global positioning or an equivalent method which conforms to the EPA

locational data standard available online under the "Data Standards" link at **http://www.epa.gov/edr/**;

2) construction related documents including engineering specifications for all purchased, manufactured, or otherwise fabricated elements associated with the remedy;

3) purchase receipts and/or certifications associated with all components of the remedy;

4) lists or logsheets which record the identity and affiliation of all personnel associated with off-site management, design, or procurement, and on-site implementation of the remedy;

5) all records and information related to characterization, analysis (verified by analysis using an appropriately sensitive and selective EPA SW-846 method or validated equivalent), shipping, and disposal of materials associated with this portion of the remedy and the long term monitoring.

In addition, Weston shall consolidate the remainder of the contaminated material under an engineered cap to contain PCBs at concentrations of 2 mg/Kg (ppm) or greater (surface and subsurface soils). The capped area will include the Muck Area and the former ponds.

Crows Mill Creek (referred to as Channel D in the draft RAWP) sediments that contain PCBs above 1 mg/Kg (ppm) dry weight shall be removed and placed under the main on-site cap. Off-site contaminated soils from the areas west of the site boundary containing PCBs at concentrations over 2 mg/Kg (ppm) will be capped in place.

Areas of the site where the remedial action is for placement of a soil cap per Section 4.4.1 of the March 29, 2001 draft Remedial Action Workplan (RAWP) as modified by the January 2004 application and Weston's August 13 letter, shall be capped with a minimum of 18 to 24 inches of clean soil [i.e. containing <1 mg/Kg (ppm) PCB per 40 C.F.R. § 761.125(a)(2)(ii)], constructed, at minimum, to meet the specifications provided in 40 C.F.R. § 761.61(a)(7). Within thirty (30) days of completing the cap remedy, Weston shall submit to EPA Region 2 the following:

1) a certification, signed by a professional engineer licensed by the State of New Jersey, verifying that such work has been completed in accordance with the Draft RAWP and this approval, and

2) certification of the source, and PCB concentration - determined by analysis using an appropriately sensitive and selective EPA SW-846 method or validated equivalent - of "clean soil" utilized in the remediation.

4. Recording of Approval and Deed Notice

Within sixty (60) days of construction of the cap remedy, as described in the draft RAWP as modified by the January 2004 application and Weston's August 13 letter, and above, Weston shall prepare a Deed Notice and request the then owner(s) of the site **and off-site areas of the site** to record the Deed Notices, in accordance with 40 C.F.R. § 761.61(a)(8) and New Jersey law, with the County Clerk's Office, Middlesex County, New Jersey. The Deed Notice shall be consistent with NJDEP requirements and shall include: a description of the extent of contamination found at the site; a description of the removal action and cap remedy; the restrictions on use included in Section 7 of this approval; and a copy of this approval, appended as an attachment. Within 10 days of receipt of a stamped, filed Deed Notice, Weston shall submit a copy of same to EPA Region 2.

5. Inspection and Maintenance Obligations; Annual Report to EPA.

Weston shall provide EPA Region 2 with an update of the status of the remediation project every three (3) months following the effective date of this approval until the capping, removal, and disposal operations are complete. After the caps are completed, Weston shall visually inspect the caps at least annually, and maintain the caps as needed. Weston shall also provide for a means of communicating with the owner of the site regarding any and all activities at the site which did or may result in any disruption, damage, removal, or other loss of integrity of the cap, and Weston shall inspect the cap within five (5) working days of such notification. If necessary, the cap shall be repaired or replaced within 14 working days of the verification of damage or other loss of integrity. Within 14 working days of completion of repairs, Weston shall submit to EPA the following information:

1) notification that the cap has been breached or otherwise suffered damage or loss of integrity;

2) certification, signed by a professional engineer licensed by the State of New Jersey, that the cap has been repaired or replaced to a condition not less than that constructed as required by this approval.

The caps shall be maintained to prevent access to the contaminated material (e.g. soil and debris) under the caps and to prevent such material from being released. Weston shall also, by July 1 of each year, submit to EPA Region 2 an annual written summary report covering the previous reporting period (January through December of the previous year). The Annual Report shall provide the following information:

1) reports of visual inspections and maintenance needed to maintain the as-built integrity of the cap;

2) maintenance reports;

3) information regarding any problems maintaining any element of the remedy.

6. Sale of the Property

If Weston is advised that the then owner of the site intends to sell or lease any portion of the TSCA Remediation Area, it shall notify EPA Region 2, in writing, of the sale or lease of any portion of the TSCA Remediation Area no later than 30 days after receiving such advice prior to such action. This notification shall include the name, address and telephone number of the new owner(s). As permitted by the access agreements. Weston shall visually inspect the caps within 30 days prior to sale or lease of any such property, and shall, thereafter, provide a written report of the results of inspection, and any as yet unreported inspections and /or maintenance on the caps, to EPA Region 2 and to the buyer or lessee no later than 10 days prior to such sale or lease. In the event that the owner of the Hatco site sells or leases any portion of the TSCA Remediation Area, Weston shall continue to be bound by all the terms and conditions of this approval, unless the following occurs:

1) the new owner or any lessee requests, in writing, that EPA Region 2 reissue this approval to the new owner or lessee, transferring all responsibility to comply with the terms and conditions of this approval to the new owner or lessee;

2) EPA Region 2 reissues this approval to the new owner or any lessee, transferring all responsibility to comply with the terms and conditions of this approval to the new owner or lessee; and

3) the new owner or any lessee provides written notification to EPA Region 2 of their acceptance of and intention to comply with the terms and conditions of the reissued approval. The reissued approval may be withdrawn if EPA Region 2 does not receive written notification from the new owner or lessee of their acceptance of, and intention to comply with, the conditions and terms of the reissued approval within 45 days of the date of the reissued approval. Under such circumstances, this approval, issued to Weston, will remain in effect. In such case, Weston shall provide EPA, in writing, documentation that Weston will be afforded access to the site, as necessary, to fulfill any and all obligations included in this approval.

7. Modifications and Changes in Use

Any modification(s) in the plan, specifications, or information submitted in Weston's application or draft RAWP as modified by the January 2004 application and Weston's August 13 letter, based on which this approval has been issued, must receive prior written approval from EPA Region 2. Minor modifications to this approval may be authorized, in writing, by the Chief

of the Pesticides and Toxic Substances Branch. Weston shall inform EPA Region 2 of any change, in writing, at least 60 days prior to such change. No action may be taken to implement any such modification unless EPA Region 2 has approved of the modification, in writing. EPA Region 2 may request additional information in order to determine whether or not it approves of the modification. If such modification involves a change in the use of the TSCA Remediation Area, EPA may revoke, suspend and/or modify this approval if it finds that Weston's remedy may pose an unreasonable risk to health or to the environment due to the change in use, or if EPA Region 2 does not receive information it deems appropriate from Weston or Hatco to make a determination regarding such potential risk. Weston shall prepare and request that the owner of the site record any amendment to the Deed Notice and/or this approval, resulting from any modification(s), within 60 days of such changes(s).

8. EPA Entry and Inspection

Hatco has provided EPA assurance that EPA representatives may enter the site at reasonable times for the purposes listed below. Weston shall, also, allow any authorized EPA representatives to enter the site at reasonable times for the purposes listed below:

1) to inspect the TSCA Remediation Area of the Hatco site to assess compliance with this approval and/or the federal PCB regulations;

2) to inspect any records related to this approval and/or federal PCB regulations;

3) to take samples for the purpose of assessing compliance with this approval and/or the federal PCB regulations.

Any refusal to allow any of the above actions may result in the suspension and/or revocation of this approval.

All notifications, documents, and requests to be submitted to EPA Region 2 as specified in this approval shall, unless EPA Region 2 later indicates otherwise in writing, be sent to:

Chief
Pesticides and Toxic Substances Branch
United States Environmental Protection Agency, Region 2
2890 Woodbridge Avenue (MS-105)
Edison, New Jersey 08837-3679
Telephone (732) 321-6765 Facsimile (732) 321-6788

This approval, issued pursuant to 40 C.F.R. § 761.61(c), is subject to Weston having provided EPA Region 2 with complete and forthright disclosure of all material facts. Any misrepresentation or omission by Weston of any material fact in Weston's application or the

draft RAWP may result in EPA's revocation, suspension and/or modification of this approval, in addition to any other legal or equitable relief or remedy EPA may choose to pursue under applicable law.

Weston's acceptance of this approval constitutes Weston's agreement to comply with: 1) all conditions and terms of this approval, and 2) all applicable provisions of federal, state and local law. This approval specifies the requirements applicable under TSCA and does not make any determination regarding requirements which may be applicable under other federal, state or local law. TSCA disposal requirements do not supercede other, more stringent, applicable federal, state or local laws, including any applicable requirements under the Solid Waste Disposal Act and its amendments, including the Resource Conservation and Recovery Act. Any failure by Weston to comply with any condition or term of this approval shall constitute a violation of said approval, which has been issued pursuant to 40 C.F.R. § 761.61(c); such violation is made unlawful by Section 15(1)(C) of TSCA, 15 U.S.C. § 2614(C). Any such violation(s) may result in an action by EPA for any legal or equitable relief or remedy available under applicable law. Any such violation might also result in EPA revoking, suspending and/or modifying this approval.

Based on the information included in Weston's application, EPA Region 2 finds that the PCB disposal authorized under this approval will not present an unreasonable risk to health or the environment. Permitted levels of PCB concentration for material remaining on-site under this approval are based on a site specific risk determination pursuant to TSCA, and are not applicable to any other site. Notwithstanding, this approval may be revoked, suspended and/or modified after Weston's acceptance thereof at any time if EPA Region 2 determines that implementation of this approval may present an unreasonable risk of injury to health or the environment. Nothing in this letter is intended or is to be construed to prejudice any right or remedy concerning the operation of Hatco's facility otherwise available to EPA under Section 6 of TSCA, 15 U.S.C. § 2605 and/or 40 C.F.R. § 761.

If you have any questions about the approval, or the request for additional information regarding the chemical waste lagoons, please contact Dennis McChesney of the Pesticides and Toxic Substances Branch at 732-906-6817.

Sincerely,

for

Kathleen C. Callahan
Acting Regional Administrator

cc: Commissioner Bradley M. Campbell
New Jersey Department of Environmental Protection

Stephen E. Maybury, Bureau Chief, BEECRA
New Jersey Department of Environmental Protection

Clean Water of New York, Inc.

Print Form

www.dispatch@cwofny.com

Internal Use Only

Approval # _____

Generators Waste Profile Sheet

Generator Information

Company	Weston Solutions, Inc.
Address	205 Campus Drive
City	Edison
State	NJ
Zip/Postal Code	08837
Contact	Jason Schindler
Phone Number	732-417-5804
Site Name	Woodbridge Pond
Site Address	Riverside Drive
Site Contact	Jason Schindler
Cell Phone	732-740-5529

Invoice Information

Company	Sevenson Environmental Services
Address	2749 Lockport Road
City	Niagara Falls
State	NY
Zip/Postal Code	14305
Contact	Mike Marrone
Phone Number	716 284 0431
Fax Number	
Email	ap@sevenson.com
PO #	1215MM
JOB #	1215

Waste Informaton

Name of Waste: Non RCRA/Non DOT non-source PCB impacted waste water

Process Generating Waste: Decanted water from sediment dredging

Chararistics	Physical State	Layers	Flash Point	Corrosivity (pH)
Color: Brown	☐ Solid	☒ Single Phase	☐ < 100 F	☐ 3-5 ☐ 5-7
Odor: None	☒ Liquid	☐ Bi-Layered	☐ 100 F_140 F	☒ 7-9 ☐ 9-12
Halogens: 0	☐ Sludge	☐ Multi-Layered	☒ > 140 F	
Sulfur %: 0	☐ Powder	☐ Emulsified		Actual:

Chemical Composition		Transporters	
% Water	100	1	Clean Water of NY
% Oil	<1	2	
% Solids	<1	3	

Was waste generated from a regulated CERCLA/Super Fund Site ? ☐ YES ☒ NO

Did load originate at a utility ? ☐ YES ☒ NO

(If this load originates at a utility, you must send in PCB analysis. Max PCB concentration must be less 2 ppm.)

Does this waste contain greater than 2 ppm PCB's or are PCB's derived from a source greater than 2ppm? ☐ YES ☒ NO

Does this waste contain greater than 1000 ppm total HOC (Halogenated Organic Compounds)? ☐ YES ☒ NO

Manifest Information

Proper Shipping Name: Non DOT, Non-RCRA Regulated Liquids

Anticipated Volume/Units: 130,000 gal Frequency ☐ Daily ☒ Weekly ☐ Monthly ☐ Yearly ☐ One Time

Method of Shipment ☒ Bulk Liquid ☐ Drum ☐ Other:

Generator Certification

I hereby certify that all information submitted in this and all attached documents is true and accurate, based on my inquiry of those individuals immediately responsible for obtaining this information. I believe that the submitted information is true and complete to the best of my knowledge and that all suspected hazards have been disclosed. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Name & Title: Jason Schindler, Principal PM Date: 5/14/19

Profile Amendment Request Form

Jason Schindler/Weston Solutions hereby requests an amendment to WMI profile #: 487244PAE
(Contact Name)

to include the following:

Amendment Type: ☐ One Time Only Request (Event) ☑ Permanent Addition to Profile (Base)

☐ Additional Analytical/MSDS to be added to profile (see attached)

☑ Volume Increase (specify volume) 1,750 ☑ Tons ☐ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify) _____

☐ Constituent(s) to be added and/or modify current range in chemical composition:

Chemicals or constituents to be added/modify	Low	High	Units

☐ Change current ranges on profile (specify below)

pH Range _____ to _____ Free Liquid Range _____ to _____

☑ Other (specify) Material is unchanged from the original approval and is characterized under ChemTech lab report SEVENSON – HATCO SITE, WOODBRIDGE 39-027

GENERATOR CERTIFICATION

By signing this form, the Generator hereby certifies:
The information provided in this document, the referenced Waste Management Generator's Waste Profile Sheet, and all other referenced documents contain true and accurate descriptions of the waste material. All information regarding known or suspected hazards in the possession of the Generator has been disclosed.

Generator/Customer Signature: _____ Date: 6/11/2019

Company Name: Weston Solutions, Inc.

Name (Print): Jason Schindler Title: Principal Project Manager

FOR WASTE MANAGEMENT USE ONLY

Submitted By: _____ Date: _____ Time: _____
(W.M. Initials)

WM Approval: _____ Date: _____

Agency Approval Required: ☐ Yes ☐ No

☐ Profile Extension
Original Expiration Date _____
Requested Extension _____
New Expiration Date _____

☐ Analytical Extension
Analytical Due Date _____
Requested Extension _____
New Analytical Due Date _____

Conditions/Precautions: _____

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA FOR

VOLATILE ORGANICS

GC SEMI-VOLATILES

METALS

GENERAL CHEMISTRY

PROJECT NAME : HATCO SITE, WOODBRIDGE, NJ

SEVENSON ENVIRONMENTAL SERVICES, INC.

2749 Lockport Road

Niagara Falls, NY - 14305

Phone No: 716-284-0431

ORDER ID : K3352

ATTENTION : Joel Czachorowski

NELAP ACCREDITED TNI LABORATORY

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Date : 06/18/2019

Dear Joel Czachorowski,

4 soil samples for the **Hatco Site, Woodbridge, NJ** project were received on **06/13/2019.** The analytical fax results for those samples requested for an expedited turn around time may be seen in this report. Please contact me if you have any questions or concerns regarding this report.

The invoice for this workorder is also attached to the e-mail.

Regards,

Steven T Chaimowitz

s.chaim@chemtech.net

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: K3352

COC Number: 2023311

CLIENT INFORMATION

Report to be sent to

COMPANY: Sevenson Environmental Services
ADDRESS: 207 Mac Lane
CITY: Keasbey STATE: NJ ZIP: 08832
ATTENTION: Joel Czachorowski JCzachorowski @sevenson.com
PHONE: 973-204-0902

PROJECT INFORMATION

PROJECT NAME: Weston / Hatco - Woodbridge Pond Project
PROJECT #: 1215 LOCATION: Keasby, NJ
PROJECT MANAGER: Mike Morone
E-MAIL: MMorone@sevenson.com
PHONE: 716-308-1990

BILLING INFORMATION

BILL TO: Sevenson Environmental Services PO# 1215
ADDRESS: 2749 Lockport Road
CITY: Niagara Falls ST: NY ZIP: 14305
ATTENTION:
PHONE: 716-284-0431

DATA TURNAROUND INFORMATION

FAX:_____ DAYS*
HARD COPY: 3 buisness days DAYS*
EDD_____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS * QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other_____
☐ EDD FORMAT_____ Call to discuss_____

ANALYSIS

1 TCLP PESTICIDE
2 Corrosivity, Ignitability
3 RCRA Characteritics
4 RCRA Characteritics
5 Reactive Cianide, Sulfide
6 TCLP Extraction, Mercury, Metals Group 1
7 ASTM Leach, Oil, Grease, TS
8 ASTM Ammonia, COD
9 TCLP VOA
see attched COC Sheet

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	6	x	x	x	x	x	x	x	x		LOC-11 ----- BH-17
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-11 ----- BH-17
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	6	x	x	x	x	x	x	x	x		LOC-12 ----- BN-18
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-12 ----- BN-18

<-- Specify Preservatives
A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/12/19 1500	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.	6-13-19 9:10	2. Paul Grabek
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coilers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP_____ FRGun#1 2.3
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
Waste Characterization per PO#G2849065 FedEx tracking # 776483107866

Page 1 of 1

SHIPPED VIA:
CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈ Overnight

Shipment Complete ☐ YES ✈ NO

1/8/2016

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY #

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:30
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.12		1	0.034	0.1	mg/L	06/14/19 15:15	06/18/19 08:05	SM 4500-NH3 B plus G
ASTM COD	64.6		1	3.97	10	mg/L		06/17/19 10:09	SM5220 D
ASTM Oil and Grease	0.844	U	1	0.844	5	mg/L		06/17/19 09:00	SW1664A
ASTM TS	172		1	1	5	mg/L		06/14/19 15:20	SM2540B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:30
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	6.54	H	1	0	0	pH		06/13/19 18:01	9045D
Ignitability	NO		1	0	0	oC		06/14/19 12:05	1030
Reactive Cyanide	0.05	U	1	0.05	0.05	mg/Kg	06/14/19 09:45	06/14/19 12:41	9012B
Reactive Sulfide	10	U	1	10	10	mg/Kg	06/14/19 11:45	06/14/19 14:25	9034

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	23.4	J	1	6.76	100	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-39-3	Barium	711		1	39.9	500	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-43-9	Cadmium	1.73	U	1	1.73	30	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-47-3	Chromium	13.3	U	1	13.3	50	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-50-8	Copper	23.9	J	1	4.85	100	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7439-92-1	Lead	34.6	J	1	14.3	60	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7439-97-6	Mercury	0.428	U	1	0.428	2	ug/L	06/13/19 15:03	06/14/19 16:06	SW7470A
7440-02-0	Nickel	16.9	U	1	16.9	200	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7782-49-2	Selenium	27.9	U	1	27.9	100	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-22-4	Silver	1.69	U	1	1.69	50	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010
7440-66-6	Zinc	241		1	48.1	200	ug/L	06/14/19 12:36	06/18/19 15:02	SW6010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	Clear
Color After:	Colorless	Clarity After:	Clear	Artifacts:	Clear
Comments:	TCLP Metals+Cu+Ni+Zn				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	TCLP
Analytical Method:	SW8081	% Moisture:	100 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL049504.D	1	06/14/19 07:38	06/14/19 18:21	PB120602

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.239	U	0.239	0.5	ug/L
76-44-8	Heptachlor	0.055	U	0.055	0.5	ug/L
1024-57-3	Heptachlor epoxide	0.112	U	0.112	0.5	ug/L
72-20-8	Endrin	0.051	U	0.051	0.5	ug/L
72-43-5	Methoxychlor	0.206	U	0.206	0.5	ug/L
8001-35-2	Toxaphene	1	U	1	5	ug/L
57-74-9	Chlordane	1	U	1	5	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	16.4		10 - 192	82%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.7		10 - 172	99%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	TCLP
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN056321.D	1		06/14/19 18:50	VN061419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.16	U	0.16	5	ug/L
75-35-4	1,1-Dichloroethene	0.18	U	0.18	5	ug/L
78-93-3	2-Butanone	0.71	U	0.71	25	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	0.22	5	ug/L
67-66-3	Chloroform	4.9	J	0.14	5	ug/L
71-43-2	Benzene	0.1	U	0.1	5	ug/L
107-06-2	1,2-Dichloroethane	0.13	U	0.13	5	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	5	ug/L
127-18-4	Tetrachloroethene	0.15	U	0.15	5	ug/L
108-90-7	Chlorobenzene	0.08	U	0.08	5	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.3		61 - 141	117%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		69 - 133	102%	SPK: 50
2037-26-5	Toluene-d8	53.9		65 - 126	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.7		58 - 135	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	322826	7.66			
540-36-3	1,4-Difluorobenzene	543338	8.59			
3114-55-4	Chlorobenzene-d5	559955	11.41			
3855-82-1	1,4-Dichlorobenzene-d4	176112	13.34			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:50
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-03	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.11		1	0.034	0.1	mg/L	06/14/19 15:15	06/18/19 08:05	SM 4500-NH3 B plus G
ASTM COD	57.6		1	3.97	10	mg/L		06/17/19 10:10	SM5220 D
ASTM Oil and Grease	0.844	U	1	0.844	5	mg/L		06/17/19 09:00	SW1664A
ASTM TS	51		1	1	5	mg/L		06/14/19 15:20	SM2540B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:50
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	6.5	H	1	0	0	pH		06/13/19 18:02	9045D
Ignitability	NO		1	0	0	oC		06/14/19 12:12	1030
Reactive Cyanide	0.05	U	1	0.05	0.05	mg/Kg	06/14/19 09:45	06/14/19 12:48	9012B
Reactive Sulfide	11.2		1	10	10	mg/Kg	06/14/19 11:45	06/14/19 14:28	9034

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	9.5	J	1	6.76	100	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-39-3	Barium	563		1	39.9	500	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-43-9	Cadmium	1.73	U	1	1.73	30	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-47-3	Chromium	74.3		1	13.3	50	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-50-8	Copper	60.9	J	1	4.85	100	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7439-92-1	Lead	14.3	U	1	14.3	60	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7439-97-6	Mercury	0.428	U	1	0.428	2	ug/L	06/13/19 15:03	06/14/19 16:08	SW7470A
7440-02-0	Nickel	17.2	J	1	16.9	200	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7782-49-2	Selenium	27.9	U	1	27.9	100	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-22-4	Silver	1.69	U	1	1.69	50	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010
7440-66-6	Zinc	163	J	1	48.1	200	ug/L	06/14/19 12:36	06/18/19 15:06	SW6010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	Clear
Color After:	Colorless	Clarity After:	Clear	Artifacts:	Clear
Comments:	TCLP Metals+Cu+Ni+Zn				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	TCLP
Analytical Method:	SW8081	% Moisture:	100 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL049505.D	1	06/14/19 07:38	06/14/19 18:36	PB120602

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.239	U	0.239	0.5	ug/L
76-44-8	Heptachlor	0.055	U	0.055	0.5	ug/L
1024-57-3	Heptachlor epoxide	0.112	U	0.112	0.5	ug/L
72-20-8	Endrin	0.051	U	0.051	0.5	ug/L
72-43-5	Methoxychlor	0.206	U	0.206	0.5	ug/L
8001-35-2	Toxaphene	1	U	1	5	ug/L
57-74-9	Chlordane	1	U	1	5	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	13.3		10 - 192	66%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.2		10 - 172	106%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	TCLP
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN056322.D	1		06/14/19 19:13	VN061419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.16	U	0.16	5	ug/L
75-35-4	1,1-Dichloroethene	0.18	U	0.18	5	ug/L
78-93-3	2-Butanone	0.71	U	0.71	25	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	0.22	5	ug/L
67-66-3	Chloroform	1.5	J	0.14	5	ug/L
71-43-2	Benzene	0.1	U	0.1	5	ug/L
107-06-2	1,2-Dichloroethane	0.13	U	0.13	5	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	5	ug/L
127-18-4	Tetrachloroethene	0.15	U	0.15	5	ug/L
108-90-7	Chlorobenzene	0.08	U	0.08	5	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.8		61 - 141	120%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		69 - 133	101%	SPK: 50
2037-26-5	Toluene-d8	53.6		65 - 126	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.9		58 - 135	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	328641	7.66			
540-36-3	1,4-Difluorobenzene	566522	8.58			
3114-55-4	Chlorobenzene-d5	580092	11.41			
3855-82-1	1,4-Dichlorobenzene-d4	186884	13.34			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA FOR

VOLATILE ORGANICS

GC SEMI-VOLATILES

METALS

GENERAL CHEMISTRY

PROJECT NAME : HATCO SITE, WOODBRIDGE, NJ

SEVENSON ENVIRONMENTAL SERVICES, INC.

2749 Lockport Road

Niagara Falls, NY - 14305

Phone No: 716-284-0431

ORDER ID : K3352

ATTENTION : Joel Czachorowski

NELAP ACCREDITED TNI LABORATORY

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Date : 06/18/2019

Dear Joel Czachorowski,

4 soil samples for the **Hatco Site, Woodbridge, NJ** project were received on **06/13/2019.** The analytical fax results for those samples requested for an expedited turn around time may be seen in this report. Please contact me if you have any questions or concerns regarding this report.

The invoice for this workorder is also attached to the e-mail.

Regards,

Steven T Chaimowitz

s.chaim@chemtech.net

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: K3352

COC Number: 2023311

CLIENT INFORMATION

Report to be sent to

COMPANY: Sevenson Environmental Services
ADDRESS: 207 Mac Lane
CITY: Keasbey STATE: NJ ZIP: 08832
ATTENTION: Joel Czachorowski JCzachorowski @sevenson.com
PHONE: 973-204-0902

PROJECT INFORMATION

PROJECT NAME: Weston / Hatco - Woodbridge Pond Project
PROJECT #: 1215 LOCATION: Keasby, NJ
PROJECT MANAGER: Mike Morone
E-MAIL: MMorone@sevenson.com
PHONE: 716-308-1990

BILLING INFORMATION

BILL TO: Sevenson Environmental Services PO# 1215
ADDRESS: 2749 Lockport Road
CITY: Niagara Falls ST: NY ZIP: 14305
ATTENTION:
PHONE: 716-284-0431

DATA TURNAROUND INFORMATION

FAX:_____ DAYS*
HARD COPY: 3 buisness days DAYS*
EDD_____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS * QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other_____
☐ EDD FORMAT_____ Call to discuss_____

ANALYSIS

1 TCLP PESTICIDE
2 Corrosivity, Ignitability
3 RCRA Characteritics
4 RCRA Characteritics
5 Reactive Cianide, Sulfide
6 TCLP Extraction, Mercury, Metals Group 1
7 ASTM Leach, Oil, Grease, TS
8 ASTM Ammonia, COD
9 TCLP VOA
see attched COC Sheet

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	6	x	x	x	x	x	x	x	x		LOC-11 ----- BH-17
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-11 ----- BH-17
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	6	x	x	x	x	x	x	x	x		LOC-12 ----- BN-18
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-12 ----- BN-18

<-- Specify Preservatives
A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/12/19 1500	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.	6-13-19 9:10	2. Paul Grabek
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coilers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP_____ FRGun#1 2.3
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
Waste Characterization per PO#G2849065 FedEx tracking # 776483107866

Page 1 of 1

SHIPPED VIA:
CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈ Overnight

Shipment Complete ☐ YES ✈ NO

1/8/2016

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY #

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:30
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	SOIL
		% Solid:	63.3

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	6.54	H	1	0	0	pH		06/13/19 18:01	9045D
Ignitability	NO		1	0	0	oC		06/14/19 12:05	1030
Oil and Grease	70.9		1	24.4	39.4	mg/Kg		06/20/19 11:30	SW9071B
Reactive Cyanide	0.05	U	1	0.05	0.05	mg/Kg	06/14/19 09:45	06/14/19 12:41	9012B
Reactive Sulfide	10	U	1	10	10	mg/Kg	06/14/19 11:45	06/14/19 14:25	9034

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	36.7 Decanted:
Sample Wt/Vol:	30.16 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO057333.D	1	06/20/19 09:10	06/20/19 22:25	PB120779

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	3.1	U	3.1	26.7	ug/kg
11104-28-2	Aroclor-1221	10.6	U	10.6	26.7	ug/kg
11141-16-5	Aroclor-1232	10.2	U	10.2	26.7	ug/kg
53469-21-9	Aroclor-1242	30.6		9.3	26.7	ug/kg
12672-29-6	Aroclor-1248	8.6	U	8.6	26.7	ug/kg
11097-69-1	Aroclor-1254	10.1	U	10.1	26.7	ug/kg
37324-23-5	Aroclor-1262	7.8	U	7.8	26.7	ug/kg
11100-14-4	Aroclor-1268	6.7	U	6.7	26.7	ug/kg
11096-82-5	Aroclor-1260	7.2	U	7.2	26.7	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.6		10 - 166	118%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.1		60 - 125	81%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19 13:50
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	SOIL
		% Solid:	47.9

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	6.5	H	1	0	0	pH		06/13/19 18:02	9045D
Ignitability	NO		1	0	0	oC		06/14/19 12:12	1030
Oil and Grease	187		1	32.2	52.1	mg/Kg		06/20/19 11:30	SW9071B
Reactive Cyanide	0.05	U	1	0.05	0.05	mg/Kg	06/14/19 09:45	06/14/19 12:48	9012B
Reactive Sulfide	11.2		1	10	10	mg/Kg	06/14/19 11:45	06/14/19 14:28	9034

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	52.1 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO057334.D	1	06/20/19 09:10	06/20/19 22:41	PB120779

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	4.2	U	4.2	35.4	ug/kg
11104-28-2	Aroclor-1221	14	U	14	35.4	ug/kg
11141-16-5	Aroclor-1232	13.6	U	13.6	35.4	ug/kg
53469-21-9	Aroclor-1242	1800	E	12.3	35.4	ug/kg
12672-29-6	Aroclor-1248	11.5	U	11.5	35.4	ug/kg
11097-69-1	Aroclor-1254	13.4	U	13.4	35.4	ug/kg
37324-23-5	Aroclor-1262	10.4	U	10.4	35.4	ug/kg
11100-14-4	Aroclor-1268	8.9	U	8.9	35.4	ug/kg
11096-82-5	Aroclor-1260	9.6	U	9.6	35.4	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	25.9		10 - 166	130%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.6		60 - 125	83%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12DL	SDG No.:	K3352
Lab Sample ID:	K3352-04DL	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	52.1 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO057352.D	4	06/20/19 09:10	06/21/19 09:42	PB120779

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	16.7	UD	16.7	140	ug/kg
11104-28-2	Aroclor-1221	56	UD	56	140	ug/kg
11141-16-5	Aroclor-1232	54.3	UD	54.3	140	ug/kg
53469-21-9	Aroclor-1242	1600	D	49.1	140	ug/kg
12672-29-6	Aroclor-1248	45.8	UD	45.8	140	ug/kg
11097-69-1	Aroclor-1254	53.7	UD	53.7	140	ug/kg
37324-23-5	Aroclor-1262	41.6	UD	41.6	140	ug/kg
11100-14-4	Aroclor-1268	35.5	UD	35.5	140	ug/kg
11096-82-5	Aroclor-1260	38.4	UD	38.4	140	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	25.5		10 - 166	128%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.3		60 - 125	91%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA FOR

VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS

GC SEMI-VOLATILES

METALS

GENERAL CHEMISTRY

PROJECT NAME : HATCO SITE, WOODBRIDGE, NJ

SEVENSON ENVIRONMENTAL SERVICES, INC.

2749 Lockport Road

Niagara Falls, NY - 14305

Phone No: 716-284-0431

ORDER ID : K3352

ATTENTION : Joel Czachorowski

NELAP ACCREDITED TNI LABORATORY

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Date : 06/18/2019

Dear Joel Czachorowski,

4 soil samples for the **Hatco Site, Woodbridge, NJ** project were received on **06/13/2019.** The analytical fax results for those samples requested for an expedited turn around time may be seen in this report. Please contact me if you have any questions or concerns regarding this report.

Regards,

Steven T Chaimowitz

s.chaim@chemtech.net

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: K3352

COC Number: 2023311

CLIENT INFORMATION

Report to be sent to

COMPANY: Sevenson Environmental Services
ADDRESS: 207 Mac Lane
CITY: Keasbey STATE: NJ ZIP: 08832
ATTENTION: Joel Czachorowski JCzachorowski @sevenson.com
PHONE: 973-204-0902

PROJECT INFORMATION

PROJECT NAME: Weston / Hatco - Woodbridge Pond Project
PROJECT #: 1215 LOCATION: Keasby, NJ
PROJECT MANAGER: Mike Morone
E-MAIL: MMorone@sevenson.com
PHONE: 716-308-1990

BILLING INFORMATION

BILL TO: Sevenson Environmental Services PO# 1215
ADDRESS: 2749 Lockport Road
CITY: Niagara Falls ST: NY ZIP: 14305
ATTENTION:
PHONE: 716-284-0431

DATA TURNAROUND INFORMATION

FAX:_____ DAYS*
HARD COPY: 3 buisness days DAYS*
EDD_____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS * QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other_____
☐ EDD FORMAT_____ Call to discuss_____

ANALYSIS

1 TCLP PESTICIDE
2 Corrosivity, Ignitability
3 RCRA Characteritics
4 RCRA Characteritics
5 Reactive Cianide, Sulfide
6 TCLP Extraction, Mercury, Metals Group 1
7 ASTM Leach, Oil, Grease, TS
8 ASTM Ammonia, COD
9 TCLP VOA
see attched COC Sheet

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	6	x	x	x	x	x	x	x	x		LOC-11 ----- BH-17
1. 20190612-LOC-11		Sediment	x		6/12/2019	13:30	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-11 ----- BH-17
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	6	x	x	x	x	x	x	x	x		LOC-12 ----- BN-18
1. 20190612-LOC-12		Sediment	x		6/12/2019	13:50	2 ENCORE	x	x	x	x	x	x	x	x	x	LOC-12 ----- BN-18

<-- Specify Preservatives
A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	6/12/19 1500	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.	6-13-19 9:10	2. Paul Grabek
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coilers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP_____ FRGun#1 2.3
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:
Waste Characterization per PO#G2849065 FedEx tracking # 776483107866

Page 1 of 1

SHIPPED VIA:
CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈ Overnight

Shipment Complete ☐ YES ✈ NO

1/8/2016

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT **YELLOW** - CHEMTECH COPY **PINK** - SAMPLER COPY #

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG041408.D	1	06/20/19 10:05	06/22/19 18:14	PB120785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	31.8	U	31.8	100	ug/L
106-46-7	1,4-Dichlorobenzene	30.3	U	30.3	100	ug/L
95-48-7	2-Methylphenol	27.9	U	27.9	100	ug/L
65794-96-9	3+4-Methylphenols	34.4	U	34.4	100	ug/L
67-72-1	Hexachloroethane	29.3	U	29.3	100	ug/L
98-95-3	Nitrobenzene	26.3	U	26.3	100	ug/L
87-68-3	Hexachlorobutadiene	31.8	U	31.8	100	ug/L
88-06-2	2,4,6-Trichlorophenol	27.9	U	27.9	100	ug/L
95-95-4	2,4,5-Trichlorophenol	28.3	U	28.3	100	ug/L
121-14-2	2,4-Dinitrotoluene	30.7	U	30.7	100	ug/L
118-74-1	Hexachlorobenzene	27.1	U	27.1	100	ug/L
87-86-5	Pentachlorophenol	42.8	U	42.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	111		10 - 130	75%	SPK: 150
13127-88-3	Phenol-d6	98.8		10 - 130	66%	SPK: 150
4165-60-0	Nitrobenzene-d5	85		36 - 131	85%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.7		39 - 131	90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	132		25 - 155	88%	SPK: 150
1718-51-0	Terphenyl-d14	89		23 - 130	89%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	25921	8.05			
1146-65-2	Naphthalene-d8	91602	10.87			
15067-26-2	Acenaphthene-d10	64578	14.69			
1517-22-2	Phenanthrene-d10	180493	17.43			
1719-03-5	Chrysene-d12	225100	21.7			
1520-96-3	Perylene-d12	241730	24.99			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-11	SDG No.:	K3352
Lab Sample ID:	K3352-02	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG041408.D	1	06/20/19 10:05	06/22/19 18:14	PB120785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG041411.D	1	06/20/19 10:05	06/22/19 20:08	PB120785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	31.8	U	31.8	100	ug/L
106-46-7	1,4-Dichlorobenzene	30.3	U	30.3	100	ug/L
95-48-7	2-Methylphenol	27.9	U	27.9	100	ug/L
65794-96-9	3+4-Methylphenols	34.4	U	34.4	100	ug/L
67-72-1	Hexachloroethane	29.3	U	29.3	100	ug/L
98-95-3	Nitrobenzene	26.3	U	26.3	100	ug/L
87-68-3	Hexachlorobutadiene	31.8	U	31.8	100	ug/L
88-06-2	2,4,6-Trichlorophenol	27.9	U	27.9	100	ug/L
95-95-4	2,4,5-Trichlorophenol	28.3	U	28.3	100	ug/L
121-14-2	2,4-Dinitrotoluene	30.7	U	30.7	100	ug/L
118-74-1	Hexachlorobenzene	27.1	U	27.1	100	ug/L
87-86-5	Pentachlorophenol	42.8	U	42.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	115		10 - 130	77%	SPK: 150
13127-88-3	Phenol-d6	98.8		10 - 130	66%	SPK: 150
4165-60-0	Nitrobenzene-d5	85.4		36 - 131	85%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.5		39 - 131	91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	136		25 - 155	91%	SPK: 150
1718-51-0	Terphenyl-d14	88.6		23 - 130	89%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	25826	8.05			
1146-65-2	Naphthalene-d8	95341	10.87			
15067-26-2	Acenaphthene-d10	67862	14.68			
1517-22-2	Phenanthrene-d10	191431	17.43			
1719-03-5	Chrysene-d12	243187	21.7			
1520-96-3	Perylene-d12	255048	24.99			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	06/12/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	06/13/19
Client Sample ID:	20190612-LOC-12	SDG No.:	K3352
Lab Sample ID:	K3352-04	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG041411.D	1	06/20/19 10:05	06/22/19 20:08	PB120785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Profile Amendment Request Form

Jason Schindler hereby requests an amendment to WMI profile #: 487244PAE
(Contact Name)

to include the following:

Amendment Type: ☐ One Time Only Request (Event) ☑ Permanent Addition to Profile (Base)

☐ Additional Analytical/MSDS to be added to profile (see attached)

☑ Volume Increase (specify volume) 250 ☑ Tons ☐ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify) _____

☐ Constituent(s) to be added and/or modify current range in chemical composition:

Chemicals or constituents to be added/modify	Low	High	Units

☐ Change current ranges on profile (specify below)

pH Range _____ to _____ Free Liquid Range _____ to _____

☑ Other (specify) This is to add 250 tons of debris to the existing profile. The debris consists of tree trunks and limbs.

GENERATOR CERTIFICATION

By signing this form, the Generator hereby certifies:
The information provided in this document, the referenced Waste Management Generator's Waste Profile Sheet, and all other referenced documents contain true and accurate descriptions of the waste material. All information regarding known or suspected hazards in the possession of the Generator has been disclosed.

Generator/Customer Signature: _____ Date: 7/15/2019

Company Name: Weston Solutions, Inc.

Name (Print): Jason Schindler Title: Principal Project Manager

FOR WASTE MANAGEMENT USE ONLY

Submitted By: _____ Date: _____ Time: _____
(W.M. Initials)

WM Approval: _____ Date: _____

Agency Approval Required: ☐ Yes ☐ No

☐ Profile Extension

Original Expiration Date _____

Requested Extension _____

New Expiration Date _____

☐ Analytical Extension

Analytical Due Date _____

Requested Extension _____

New Analytical Due Date _____

Conditions/Precautions: _____

Profile Amendment Request Form

Jason Schindler hereby requests an amendment to WMI profile #: 487244PAE
(Contact Name)

to include the following:

Amendment Type: ☑ One Time Only Request (Event) ☐ Permanent Addition to Profile (Base)

☐ Additional Analytical/MSDS to be added to profile (see attached)

☑ Volume Increase (specify volume) 500 ☐ Tons ☑ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify) _____

☐ Constituent(s) to be added and/or modify current range in chemical composition:

Chemicals or constituents to be added/modify	Low	High	Units

☐ Change current ranges on profile (specify below)

pH Range ____ to ____ Free Liquid Range ____ to ____

☑ Other (specify) See attached sample results and sampling map

GENERATOR CERTIFICATION

By signing this form, the Generator hereby certifies:
The information provided in this document, the referenced Waste Management Generator's Waste Profile Sheet, and all other referenced documents contain true and accurate descriptions of the waste material. All information regarding known or suspected hazards in the possession of the Generator has been disclosed.

Generator/Customer Signature: _____ Date: 8/5/2019

Company Name: Weston Solutions, Inc.

Name (Print): Jason Schindler Title: Principal Project Manager

FOR WASTE MANAGEMENT USE ONLY

Submitted By: _____ Date: _____ Time: _____
(W.M. Initials)

WM Approval: _____ Date: _____

Agency Approval Required: ☐ Yes ☐ No

☐ Profile Extension

Original Expiration Date _____

Requested Extension _____

New Expiration Date _____

☐ Analytical Extension

Analytical Due Date _____

Requested Extension _____

New Analytical Due Date _____

Conditions/Precautions: _____

Profile Amendment Request Form

Jason Schindler _____ hereby requests an amendment to WMI profile #: _____
(Contact Name)

to include the following:

Amendment Type: ☑ One Time Only Request (Event) ☐ Permanent Addition to Profile (Base)

☐ Additional Analytical/MSDS to be added to profile (see attached)

☑ Volume Increase (specify volume) 500 _____ ☐ Tons ☑ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify) _____

☐ Constituent(s) to be added and/or modify current range in chemical composition:

Chemicals or constituents to be added/modify	Low	High	Units
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

☐ Change current ranges on profile (specify below)

pH Range _____ to _____ Free Liquid Range _____ to _____

☑ Other (specify) See attached sample results and sampling map _____

_____

_____

GENERATOR CERTIFICATION

By signing this form, the Generator hereby certifies:
The information provided in this document, the referenced Waste Management Generator's Waste Profile Sheet, and all other referenced documents contain true and accurate descriptions of the waste material. All information regarding known or suspected hazards in the possession of the Generator has been disclosed.

Generator/Customer Signature: _____ Date: 8/5/2019

Company Name: Weston Solutions, Inc. _____

Name (Print): Jason Schindler _____ Title: Principal Project Manager

FOR WASTE MANAGEMENT USE ONLY

Submitted By: _____ (W.M. Initials) Date: _____ Time: _____

WM Approval: _____ Date: _____

Agency Approval Required: ☐ Yes ☐ No

☐ Profile Extension

Original Expiration Date _____

Requested Extension _____

New Expiration Date _____

☐ Analytical Extension

Analytical Due Date _____

Requested Extension _____

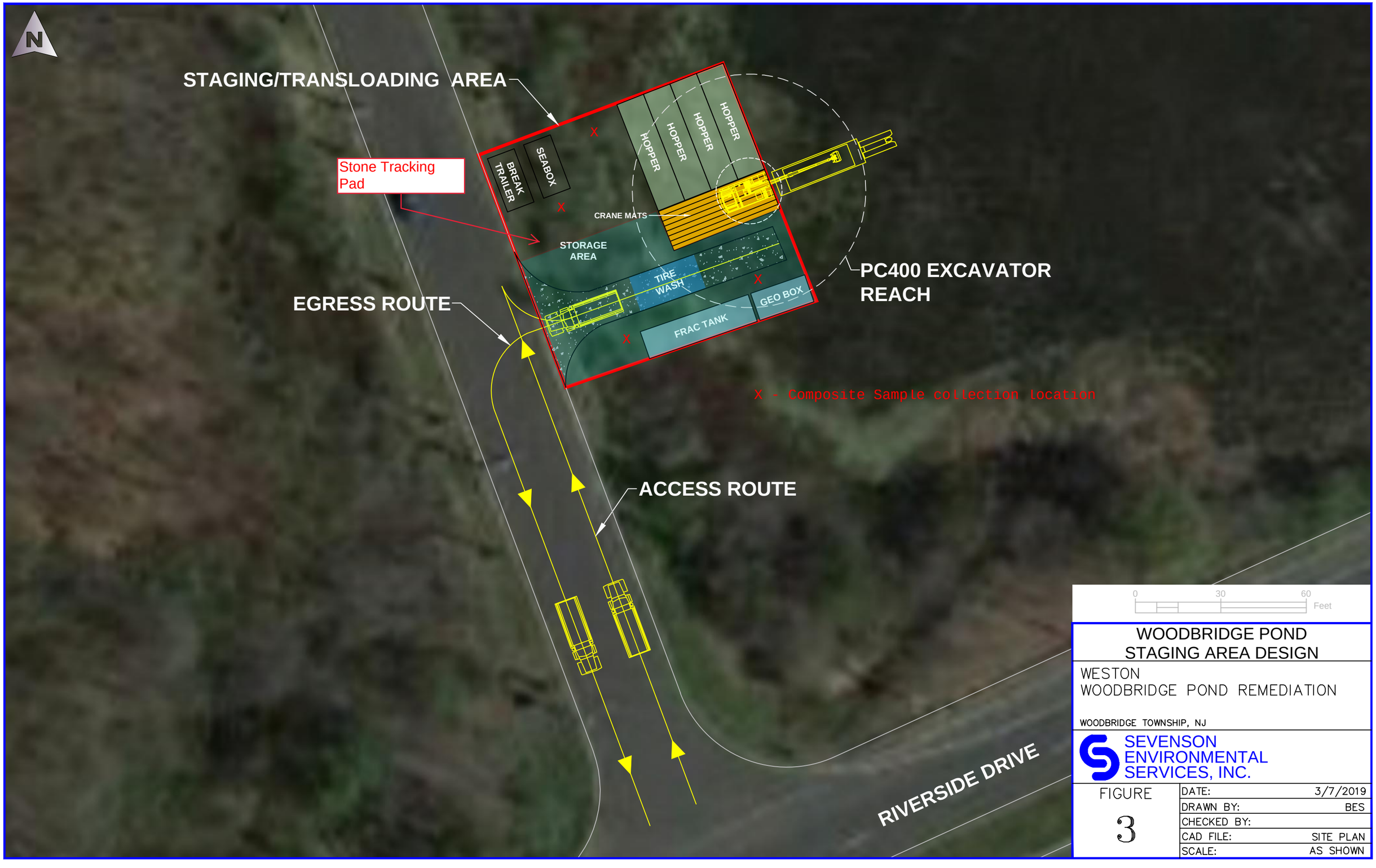
New Analytical Due Date _____

Conditions/Precautions: _____

_____

_____

_____



WOODBRIDGE POND STAGING AREA DESIGN

WESTON
WOODBRIDGE POND REMEDIATION

WOODBRIDGE TOWNSHIP, NJ

SEVENSON ENVIRONMENTAL SERVICES, INC.

FIGURE 3

DATE:	3/7/2019
DRAWN BY:	BES
CHECKED BY:	
CAD FILE:	SITE PLAN
SCALE:	AS SHOWN

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA FOR

VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS

GC SEMI-VOLATILES

METALS

GENERAL CHEMISTRY

PROJECT NAME : HATCO SITE, WOODBRIDGE, NJ

SEVENSON ENVIRONMENTAL SERVICES, INC.

2749 Lockport Road

Niagara Falls, NY - 14305

Phone No: 716-284-0431

ORDER ID : K4077

ATTENTION : Joel Czachorowski

NELAP ACCREDITED TNI LABORATORY

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Date : 08/02/2019

Dear Joel Czachorowski,

3 soil samples for the **Hatco Site, Woodbridge, NJ** project were received on **07/30/2019.** The analytical fax results for those samples requested for an expedited turn around time may be seen in this report. Please contact me if you have any questions or concerns regarding this report.

Regards,

Steven T Chaimowitz

s.chaim@chemtech.net

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number K4077

COC Number: 2023311

CLIENT INFORMATION

Report to be sent to
COMPANY: Sevenson Environmental Services
ADDRESS: 207 Mac Lane
CITY: Keasbey STATE: NJ ZIP: 08832
ATTENTION: Joel Czachorowski JCzachorowski @sevenson.com
PHONE: 973-204-0902

PROJECT INFORMATION

PROJECT NAME: Weston / Hatco - Woodbridge Pond Project
PROJECT #: 1215 LOCATION: Keasby, NJ
PROJECT MANAGER: Mike Morone
E-MAIL: MMorone@sevenson.com
PHONE: 716-308-1990

BILLING INFORMATION

BILL TO: Sevenson Environmental Services PO# 1215MM
ADDRESS: 2749 Lockport Road
CITY: Niagara Falls ST: NY ZIP: 14305
ATTENTION:
PHONE: 716-284-0431

DATA TURNAROUND INFORMATION

FAX:_____ DAYS*
HARD COPY: 3 buisness days DAYS*
EDD_____ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS * QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other_____
☐ EDD FORMAT_____ Call to discuss_____

ANALYSIS

1	2	3	4	5	6	7	8	9	
TCLP Pesticide, Herbacide , BNA	Corrosivity, Ignitability, TS, TVS	RCRA Characteritics, , Metals+Cu+Ni+Zn	TCLP 2HE Extraction	Reactive Cianide, Sulfide, PCB	TCLP Extraction, Mercury, Metals Group 1	ASTM Leach, Oil, Grease, TS	ASTM Ammonia, COD	TCLP VOA	see attched COC Sheet

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 20190612-LOC-13		Sediment	x		7/30/2019	11:10	6	x	x	x	x	x	x	x	x		LOC-13 ----- Staging Area
2. 20190612-LOC-13		Sediment	x		7/30/2019	11:10	1 ENCORE									x	LOC-13 ----- Staging Area
																	Please see attached sheet
																	for full Analysis

<-- Specify Preservatives
A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	07/30/19 1300	1.
RELINQUISHED BY	DATE/TIME 13:11 7-30-19	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP 3.4
MeOH extraction requires an additional ~~4oz. Jar for~~ percent solid
Comments:
Waste Characterization per PO#G2849065 FedEx tracking #

Page 1 of 1

SHIPPED VIA:
CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈ Overnight

Shipment Complete
☒ YES ✈ NO

#

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

1/8/2016

7f-Gun #1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19 11:10
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
ASTM Ammonia	0.048	J	1	0.034	0.1	mg/L	07/31/19 14:15	08/01/19 09:34	SM 4500-NH3 B plus G
ASTM COD	27.7		1	3.97	10	mg/L		08/01/19 12:19	SM5220 D
ASTM Oil and Grease	1.3	J	1	0.844	5	mg/L		08/01/19 08:30	SW1664A
ASTM TS	45		1	1	5	mg/L		07/31/19 16:40	SM2540B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19 11:10
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	SOIL
		% Solid:	90.4

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.99	H	1	0	0	pH		07/30/19 17:45	9045D
Ignitability	NO		1	0	0	oC		07/31/19 11:05	1030
Oil and Grease	99.4		1	17.1	27.6	mg/Kg		07/31/19 09:40	SW9071B
Reactive Cyanide	0.05	U	1	0.05	0.05	mg/Kg	07/31/19 10:15	08/01/19 11:25	9012B
Reactive Sulfide	10	U	1	10	10	mg/Kg	07/31/19 12:15	07/31/19 15:02	9034
TS	90.7		1	1	5	%		07/31/19 16:30	SM2540B
TVS	5.3	J	1	1	10	%		07/31/19 16:30	160.4

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	9.6 Decanted:
Sample Wt/Vol:	30.12 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO058700.D	1	07/31/19 09:40	07/31/19 20:43	PB121851

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
12674-11-2	Aroclor-1016	2.2	U	2.2	18.7	ug/kg
11104-28-2	Aroclor-1221	7.4	U	7.4	18.7	ug/kg
11141-16-5	Aroclor-1232	7.2	U	7.2	18.7	ug/kg
53469-21-9	Aroclor-1242	6.5	U	6.5	18.7	ug/kg
12672-29-6	Aroclor-1248	93		6.1	18.7	ug/kg
11097-69-1	Aroclor-1254	18	JP	7.1	18.7	ug/kg
37324-23-5	Aroclor-1262	5.5	U	5.5	18.7	ug/kg
11100-14-4	Aroclor-1268	4.7	U	4.7	18.7	ug/kg
11096-82-5	Aroclor-1260	5.1	U	5.1	18.7	ug/kg
SURROGATES						
877-09-8	Tetrachloro-m-xylene	24.6		10 - 166	123%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.5		60 - 125	93%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF115920.D	1	08/01/19 08:32	08/01/19 21:29	PB121888

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	31.8	U	31.8	100	ug/L
106-46-7	1,4-Dichlorobenzene	30.3	U	30.3	100	ug/L
95-48-7	2-Methylphenol	27.9	U	27.9	100	ug/L
65794-96-9	3+4-Methylphenols	34.4	U	34.4	100	ug/L
67-72-1	Hexachloroethane	29.3	U	29.3	100	ug/L
98-95-3	Nitrobenzene	26.3	U	26.3	100	ug/L
87-68-3	Hexachlorobutadiene	31.8	U	31.8	100	ug/L
88-06-2	2,4,6-Trichlorophenol	27.9	U	27.9	100	ug/L
95-95-4	2,4,5-Trichlorophenol	28.3	U	28.3	100	ug/L
121-14-2	2,4-Dinitrotoluene	30.7	U	30.7	100	ug/L
118-74-1	Hexachlorobenzene	27.1	U	27.1	100	ug/L
87-86-5	Pentachlorophenol	42.8	U	42.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	108		10 - 130	72%	SPK: 150
13127-88-3	Phenol-d6	98.8		10 - 130	66%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.9		36 - 131	90%	SPK: 100
321-60-8	2-Fluorobiphenyl	97		39 - 131	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	122		25 - 155	81%	SPK: 150
1718-51-0	Terphenyl-d14	93		23 - 130	93%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	146327	6.85			
1146-65-2	Naphthalene-d8	549051	8.13			
15067-26-2	Acenaphthene-d10	279518	9.89			
1517-22-2	Phenanthrene-d10	445667	11.38			
1719-03-5	Chrysene-d12	292914	14.02			
1520-96-3	Perylene-d12	356574	15.49			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF115920.D	1	08/01/19 08:32	08/01/19 21:29	PB121888

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Analytical Method:	SW8151A	% Moisture:	100 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Herbicide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS005843.D	1	08/01/19 09:15	08/01/19 21:33	PB121890

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	5.5	U	5.5	20	ug/L
93-72-1	2,4,5-TP (Silvex)	4.3	U	4.3	20	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	381		43 - 172	76%	SPK: 500

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-38-2	Arsenic	7.7	J	1	6.76	100	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-39-3	Barium	263	J	1	39.9	500	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-43-9	Cadmium	1.73	U	1	1.73	30	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-47-3	Chromium	13.3	U	1	13.3	50	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-50-8	Copper	29.1	J	1	4.85	100	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7439-92-1	Lead	14.3	U	1	14.3	60	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7439-97-6	Mercury	0.428	U	1	0.428	2	ug/L	08/01/19 11:00	08/01/19 12:26	SW7470A
7440-02-0	Nickel	29.4	J	1	16.9	200	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7782-49-2	Selenium	27.9	U	1	27.9	100	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-22-4	Silver	55.7		1	1.69	50	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010
7440-66-6	Zinc	228		1	48.1	200	ug/L	07/31/19 10:23	07/31/19 18:18	SW6010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	Clear
Color After:	Colorless	Clarity After:	Clear	Artifacts:	Clear
Comments:	TCLP Metals+Cu+Ni+Zn				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Analytical Method:	SW8081	% Moisture:	100 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL050963.D	1	08/01/19 08:50	08/01/19 17:56	PB121889

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.239	U	0.239	0.5	ug/L
76-44-8	Heptachlor	0.055	U	0.055	0.5	ug/L
1024-57-3	Heptachlor epoxide	0.112	U	0.112	0.5	ug/L
72-20-8	Endrin	0.051	U	0.051	0.5	ug/L
72-43-5	Methoxychlor	0.206	U	0.206	0.5	ug/L
8001-35-2	Toxaphene	1	U	1	10	ug/L
57-74-9	Chlordane	1	U	1	5	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	25		10 - 192	125%	SPK: 20
877-09-8	Tetrachloro-m-xylene	22.8		10 - 172	114%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Sevenson Environmental Services, Inc.	Date Collected:	07/30/19
Project:	Hatco Site, Woodbridge, NJ	Date Received:	07/30/19
Client Sample ID:	20190612-LOC-13	SDG No.:	K4077
Lab Sample ID:	K4077-02	Matrix:	TCLP
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN057014.D	1		07/31/19 15:04	VN073119

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.16	U	0.16	5	ug/L
75-35-4	1,1-Dichloroethene	0.18	U	0.18	5	ug/L
78-93-3	2-Butanone	0.71	U	0.71	25	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	0.22	5	ug/L
67-66-3	Chloroform	0.14	U	0.14	5	ug/L
71-43-2	Benzene	0.1	U	0.1	5	ug/L
107-06-2	1,2-Dichloroethane	0.13	U	0.13	5	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	5	ug/L
127-18-4	Tetrachloroethene	0.15	U	0.15	5	ug/L
108-90-7	Chlorobenzene	0.08	U	0.08	5	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48		61 - 141	96%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		69 - 133	95%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.6		58 - 135	81%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	556069	7.66			
540-36-3	1,4-Difluorobenzene	812749	8.58			
3114-55-4	Chlorobenzene-d5	682042	11.4			
3855-82-1	1,4-Dichlorobenzene-d4	206789	13.34			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CHEMTECH

TCLP EXTRACTION LOGPAGE

PB121843

SOP ID : M1311-TCLP-12

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-4

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1/T-2

TCLP Filter ID : 112000

Start Prep Date : 07/30/2019 **Time :** 17:20

End Prep Date : 07/31/2019 **Time :** 09:40

Combination Ratio : N/A

ZHE Cleaning Batch : N/A

Initial Room Temperature: 24 °C

Final Room Temperature: 23 °C

TCLP Technician Signature : JD

Supervisor By :

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE US	Lot Number
TCLP-FLUID-1	N/A	WP76603
HCL-TCLP,1N	N/A	WP76605
HNO3-TCLP,1N	N/A	WP76606
pH Strips	N/A	W1931,W1934,W1935,W2350
pH Strips	N/A	W1937,W1938,W1939,W1940,W1941,W1942
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after filtration and before preservation.k3618-10 is used for MS-MSD.

Date / Time	Received By	Relinquished By	Location
07-31-19	RJ DF	JD	Met Dig. -
	Analysis Group	Preparation Group	Ext 29b; -

CHEMTECH

TCLP EXTRACTION LOGPAGE

PB121843

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
K3618-10	HD-02-073019	01	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
K4066-02	TP-1-A	02	100.04	2000	N/A	N/A	N/A	5.6	1.5	T-1
K4066-08	TP-11	03	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-1
K4066-12	TP-12	04	100.01	2000	N/A	N/A	N/A	7.6	1.5	T-1
K4066-16	TP-13	05	100.03	2000	N/A	N/A	N/A	7.2	1.0	T-1
K4073-01	SB-1(0-2)	06	100.03	2000	N/A	N/A	N/A	5.0	1.5	T-1
K4073-02	SB-3(0-2)	07	100.04	2000	N/A	N/A	N/A	4.5	1.0	T-1
K4073-03	SB-7(0-2)	08	100.02	2000	N/A	N/A	N/A	4.5	1.5	T-1
K4073-04	SB-11(0-2)	09	100.03	2000	N/A	N/A	N/A	4.0	1.0	T-1
K4073-05	SB-12(0-2)	10	100.02	2000	N/A	N/A	N/A	4.5	1.5	T-1
K4074-11	SS-12_072919	11	100.03	2000	N/A	N/A	N/A	6.0	1.0	T-2
K4074-12	SS-11_072919	12	100.04	2000	N/A	N/A	N/A	6.2	1.5	T-2
K4077-02	20190612-LOC-13	13	100.05	2000	N/A	N/A	N/A	7.2	1.0	T-2
PB121843TB	LEB843	14	N/A	2000	N/A	N/A	N/A	4.94	1.5	~~T-1~~ T-2

D.P. 7/31/19 SP.

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
K3618-10	HD-02-073019	100.00	0.63	0	N/A	100	N/A
K4066-02	TP-1-A	100.01	0.60	0	N/A	100	N/A
K4066-08	TP-11	100.03	0.61	0	N/A	100	N/A
K4066-12	TP-12	100.05	0.63	0	N/A	100	N/A
K4066-16	TP-13	100.04	0.60	0	N/A	100	N/A
K4073-01	SB-1(0-2)	100.02	0.65	0	N/A	100	N/A
K4073-02	SB-3(0-2)	100.03	0.61	0	N/A	100	N/A
K4073-03	SB-7(0-2)	100.00	0.63	0	N/A	100	N/A
K4073-04	SB-11(0-2)	100.02	0.60	0	N/A	100	N/A
K4073-05	SB-12(0-2)	100.01	0.61	0	N/A	100	N/A
K4074-11	SS-12_072919	100.03	0.60	0	N/A	100	N/A
K4074-12	SS-11_072919	100.02	0.63	0	N/A	100	N/A
K4077-02	20190612-LOC-13	100.01	0.64	0	N/A	100	N/A
PB121843TB	LEB843	N/A	N/A	N/A	N/A	N/A	N/A

CHEMTECH

TCLP Fluid Determination

PB121843

Hot Block ID : WC S-1/WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
K3618-10	HD-02-073019	5.03	96.5	8.2	2.0	#1	4.94
K4066-02	TP-1-A	5.00	96.5	8.2	2.5	#1	4.94
K4066-08	TP-11	5.01	96.5	9.7	4.0	#1	4.94
K4066-12	TP-12	5.03	96.5	10.0	4.5	#1	4.94
K4066-16	TP-13	5.03	96.5	9.5	4.0	#1	4.94
K4073-01	SB-1(0-2)	5.04	96.5	6.6	1.5	#1	4.94
K4073-02	SB-3(0-2)	5.00	96.5	5.8	1.5	#1	4.94
K4073-03	SB-7(0-2)	5.02	96.5	6.6	2.0	#1	4.94
K4073-04	SB-11(0-2)	5.01	96.5	5.6	1.5	#1	4.94
K4073-05	SB-12(0-2)	5.02	96.5	5.5	1.5	#1	4.94
K4074-11	SS-12_072919	5.03	96.5	8.6	2.0	#1	4.94
K4074-12	SS-11_072919	5.04	96.5	8.6	2.5	#1	4.94
K4077-02	20190612-LOC-13	5.05	96.5	9.0	4.0	#1	4.94
PB121843TB	LEB843	N/A	N/A	N/A	N/A	N/A	N/A

WASTE MANAGEMENT

Profile Amendment Request Form

Jason Schindler hereby requests an amendment to WMI profile #: 487244PAE
(Contact Name)

to include the following:

Amendment Type: ☑ One Time Only Request (Event) ☐ Permanent Addition to Profile (Base)

☐ Additional Analytical/MSDS to be added to profile (see attached)

☐ Volume Increase (specify volume) _____ ☐ Tons ☐ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify) _____

☐ Constituent(s) to be added and/or modify current range in chemical composition:

Chemicals or constituents to be added/modify	Low	High	Units

☐ Change current ranges on profile (specify below)

pH Range _____ to _____ Free Liquid Range _____ to _____

☑ Other (specify) Disposal of 16 - 4' x 24' x 12" Timber Crane Mats, only contamination is the PCB contaminated sediment currently approved under profile 487244PAE.

GENERATOR CERTIFICATION

By signing this form, the Generator hereby certifies:
The information provided in this document, the referenced Waste Management Generator's Waste Profile Sheet, and all other referenced documents contain true and accurate descriptions of the waste material. All information regarding known or suspected hazards in the possession of the Generator has been disclosed.

Generator/Customer Signature: _____ Date: 8/30/2019

Company Name: Weston Solutions, Inc.

Name (Print): Jason Schindler Title: Principal Project Manager

FOR WASTE MANAGEMENT USE ONLY

Submitted By: _____ Date: _____ Time: _____
(W.M. Initials)

WM Approval: _____ Date: _____

Agency Approval Required: ☐ Yes ☐ No

☐ Profile Extension
Original Expiration Date _____
Requested Extension _____
New Expiration Date _____

☐ Analytical Extension
Analytical Due Date _____
Requested Extension _____
New Analytical Due Date _____

Conditions/Precautions: _____